



7 PM COMPILATION

October, 2025

Features of 7 PM compilation

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

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Seeds – Significance & Challenges – Explained Pointwise

In agriculture, the fundamental input is the seed, which is more than just a mere grain. Unlike grains, seeds encompass living embryos nestled within supporting or food storage tissues. Seeds prioritize the biological essence, emphasizing the living organism within, whereas grains emphasize the economic yield of the supporting tissue.

Introduction:

- Seed plays an important role in farming due to its characteristics, Seeds are not just inert grains; they contain living organisms crucial for plant growth.
- As per **Seed Act 1966**, Seed means any of the following classes of seeds:
 - Used for sowing or planting, seed of food crops including edible oil seeds and seeds of fruits and vegetables,
 - Cotton seeds;
 - Seeds of cattle fodder;
 - Jute seeds include seedlings, tubers, bulbs, rhizomes, roots, cuttings, all types of grafts and other vegetatively propagated material, of food crops or cattle fodder.
- **Seed Replacement Rate (SRR):**
 - Measures how much of the total cropped area was sown with certified seeds in comparison to farm saved seeds.
 - Higher the Seed Replacement Ratio, higher is production as well as productivity.
- Regulation ensures the quality, safety, and integrity of seeds, safeguarding farmers' investments and ensuring consistent yields.

Types of Seeds:

Nuclear Seeds	<ul style="list-style-type: none"> ● This is the hundred percent genetically pure seed with physical purity and produced by the original breeder/Institute /State Agriculture University (SAU) from basic nucleus seed stock. ● A pedigree certificate is issued by the producing breeder.
Breeder Seeds	<ul style="list-style-type: none"> ● Progeny of nucleus seed of a variety and is produced by the originating breeder or by a sponsored breeder. ● Breeder seed production is the mandate of the Indian Council of Agricultural Research (ICAR).
Foundation Seeds	<ul style="list-style-type: none"> ● Progeny of breeder seed is required to be produced from breeder seed or from foundation seed which can be clearly traced to breeder seed. ● The responsibility for agricultural productivity of foundation seed has been entrusted to the NSC, SFCE, State Seeds Corporation, State Departments of Agriculture and private seed producers.

	<ul style="list-style-type: none"> Foundation seed is required to meet the standards of seed certification prescribed in the Indian Minimum Seed Certification Standards, both at the field and laboratory testing.
Certified Seeds	<ul style="list-style-type: none"> Progeny of foundation seed and must meet the standards of seed certification prescribed in the Indian Minimum Seeds Certification Standards, 1988. Its production shall be so handled as to maintain specific genetic identity and purity. Certified seed may be the progeny of certified seed provided this reproduction does not exceed three generations beyond foundation seed stage-I.
Labelled Seeds	<ul style="list-style-type: none"> The seed notified under Section 5 of the Seeds Act, 1966, such seed sold in the market has to be labelled as prescribed under Section 6(a) and (b) of the Seeds Act Such seed is called Labelled Seed.
Hybrid Seeds	<ul style="list-style-type: none"> Hybrid (certified) seed is the first generation resulting from the cross of two approved inbred lines, one of which is male sterile.

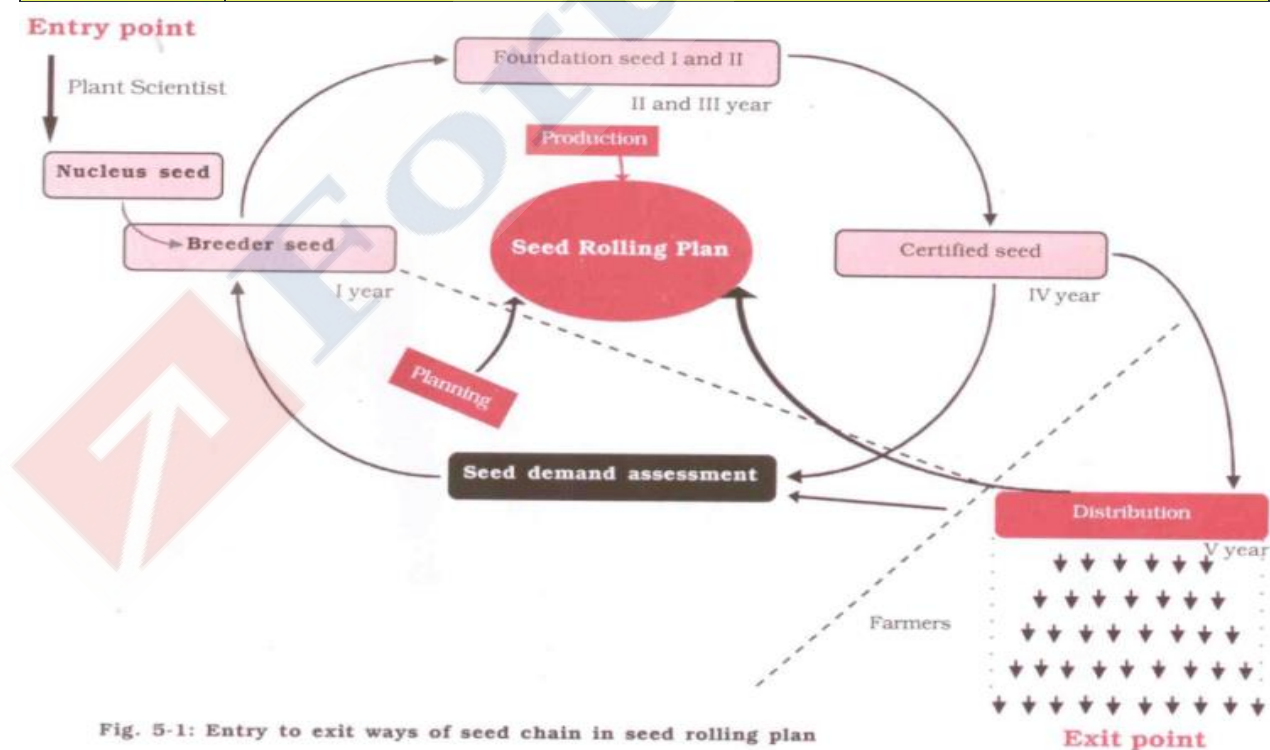
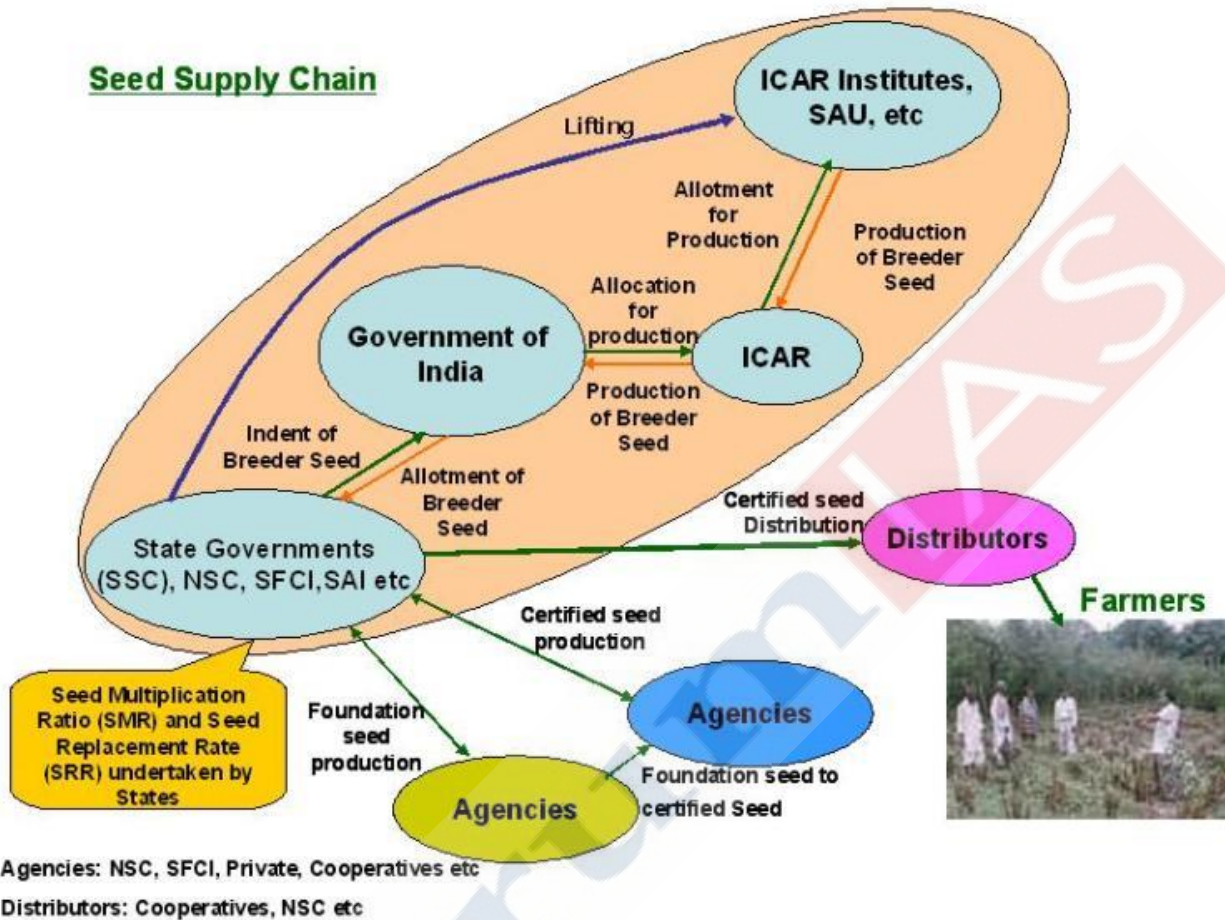


Fig. 5-1: Entry to exit ways of seed chain in seed rolling plan

Source: Vikaspedia

Seed Supply Chain:

Source: Vikaspedia

Significance of Seeds for Agriculture:**1. Determinant of Crop Yield & Quality:**

- High-quality seeds contribute 20–25% directly to crop yields and, when combined with proper management, can boost total productivity up to 45%.
- Improved and certified seeds lead to better plant vigor, uniformity, and enhanced resistance against pests and diseases, ultimately resulting in higher output and quality produce.

2. Driver of Agricultural Innovation:

- Use of hybrid, genetically improved, and biofortified seeds enables adoption of high-yielding and stress-tolerant varieties.
- Seeds are central to the dissemination of new technologies such as drought-tolerant, pest-resistant, and climate-resilient crop varieties, supporting sustainable agriculture.

3. Food Security: Timely and affordable access to quality seeds is critical in ensuring food security for India's large population.**4. Risk Management:** Quality seeds help farmers manage risks from biotic and abiotic stresses—like droughts, floods, and pest outbreaks—by providing greater yield stability.**5. Input Cost:** Better seeds mean less need for chemical inputs (fertilizers, pesticides), lowering cultivation costs and minimizing environmental impact.

6. **Environmental Benefits:** Improved seed systems support diversified cropping, value-added crops, and market-oriented production, boosting farm income and export potential.
7. **Foundation of Rural Prosperity:** The availability of quality seeds is the bedrock of farm success, enabling small and marginal farmers to participate in productivity gains, poverty reduction, and rural development.

Challenges related to seeds:

1. **Limited Access to Quality Seeds:** Many farmers, especially smallholders, rely on farm-saved or uncertified seeds, leading to poor yields, low resistance to pests/diseases, and inconsistent quality. The availability of certified, hybrid, or improved seeds is uneven across regions and crops.
2. **High Cost (Affordability Issue):** Hybrid and biofortified seeds often cost significantly more than traditional varieties, creating affordability barriers for resource-poor farmers. Lack of credit and input subsidies further restricts access for marginal farmers.
3. **Counterfeit & Substandard Seeds:** The market is sometimes flooded with counterfeit, spurious, or low-quality seeds, particularly in high-demand seasons. Poor enforcement of seed quality standards and lack of awareness among farmers increases risk of crop failure.
4. **Storage Challenges:** Poor seed storage infrastructure leads to loss of viability, higher rates of decay, and wastage—especially among small producers.
5. **Distribution Bottlenecks:** Inadequate seed distribution networks (especially in remote/rainfed areas) cause shortages and seasonal mismatch.
6. **Regulatory Issues:** Delays in variety approval, seed certification, and complex regulatory procedures impede market entry for new, improved seeds.
7. **Intellectual Property & Legal Hurdles:**
 - Limited access to information, extension services, and demonstration plots hampers adoption of stress-resilient, hybrid, and climate-smart seed varieties.
 - Research-extension gaps mean many advances in seed technology do not reach farmers in time.

Government initiatives for seeds:

1. **Seed Legislation:** The seed industry in India has been governed by several legislative & policy frameworks such as Seed Act (1966), Seed Rules (1968), Seed (Control) Order (1983), New Policy on Seed Development (1988), Plants, Fruits & Seeds (Regulation of Import into India) Order (1989), Protection of Plant Varieties and Farmers' Right Act (2001), and the Essential Commodities Act, 1955 including Seeds (1955), National Seed Policy (2002), and Seed Bill (2004).
2. **National Seed Policy 2002:**
 - Sets the framework for quality assurance, production, certification, and distribution of seeds across varieties and crops.
 - Focuses on protecting farmers' rights, encouraging private innovation, and improving availability of high-yielding and resilient seeds.
3. **National Mission on Seeds & Planting Material:**
 - Aims to increase production and supply of certified/hybrid seed, promote breeder and foundation seed multiplication, and strengthen public sector seed farms.
 - Supports seed hubs and demonstration plots to fast-track adoption of improved varieties.
4. **PM Fasal Bima Yojana Synergy:** While primarily a crop insurance scheme, it complements quality seed initiatives by reducing farmers' risk in trying new or improved seed varieties.

5. **Seed Mini-Kit Programme:** Distributes free/highly subsidized minikits of improved seed varieties (especially in pulses, oilseeds, and coarse cereals) to showcase performance and encourage adoption, especially among smallholders and in rainfed/difficult areas.
6. **Seed Certification & Distribution:**
 - The government, through State Seed Certification Agencies and the National Seed Corporation, strictly enforces certified seed production, testing, labeling, and market surveillance to curb substandard and spurious seeds.
 - Digital tools and the National Seed Traceability System (NSTS) improve transparency and track the seed supply chain.
7. **Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, 2001:** Initiatives for faster variety registration, IPR protection under Protection of Plant Varieties and Farmers' Rights (PPV&FR) Act, and simplified field trial procedures.
8. **Indian Seed Vault:**
 - It is the second such seed bank in the world after the one at Norwegian Arctic island of Svalbard.
 - The gene bank was created at Chang-La, 75 km from Leh in Ladakh.
 - Another Seed Bank in India for long term storage of seeds is maintained in New Delhi by the Indian Council of Agricultural Research (ICAR) but that runs a huge electricity bill for refrigeration.
 - Currently holds 5,000 seeds of vegetables and crops developed and grown by the defence scientists.

Way Forward:

1. **Enhance Quality Assurance and Enforcement:**
 - Strengthen certification systems and market surveillance to eliminate substandard and counterfeit seeds.
 - Expand digital platforms like National Seed Traceability System for transparent tracking from production to sale.
2. **Promote Innovation and Research:**
 - Invest in development of climate-resilient, biofortified, and hybrid seeds suited for diverse agro-ecological zones.
 - Facilitate collaboration between public research institutions and the private sector for rapid variety development and adoption.
3. **Increase Seed Replacement Rate and Adoption:**
 - Set ambitious seed replacement targets and incentivize adoption through minikits, demonstrations, and targeted subsidies, especially in rainfed/remote regions.
 - Encourage adoption of new varieties via extension services and capacity-building initiatives.
4. **Strengthen Distribution and Accessibility:**
 - Improve last-mile distribution channels and infrastructure to ensure timely, affordable access of quality seeds to all regions, especially for small and marginal farmers.
 - Leverage digital ordering and agri-tech platforms for seed availability updates and farmer support.
5. **Support Farmer Awareness and Training:**
 - Scale up farmer training, field demonstrations, and digital extension to increase knowledge about benefits of improved and certified seeds.

- Promote awareness of seed quality, proper storage, and the risks of using uncertified seeds.

6. Policy and Regulatory Reform:

- Streamline variety registration, approval procedures, and IPR protection to encourage private innovation and rapid market entry.
- Enforce effective grievance redressal mechanisms and simplify availing government schemes.

Conclusion:

Recognizing the significance of seeds as living entities and implementing effective regulations is essential for sustainable agriculture and food security.

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Read More: [Vikaspedia](https://www.vikaspedia.com/)

Irrigation – Significance & Challenges – Explained Pointwise

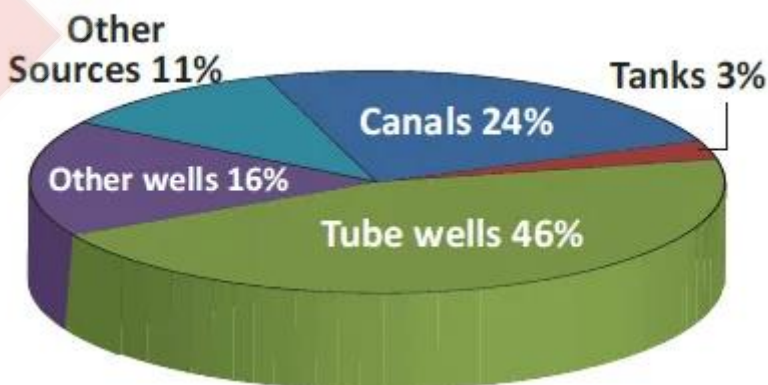
Irrigation is a key agricultural practice that entails the regulated and intentional application of water to plants or crops. It involves adding water to the soil in order to promote plant development and raise agricultural yield. Since ancient times, the method has been utilized to boost crop production and lessen the effects of dry spells or droughts.

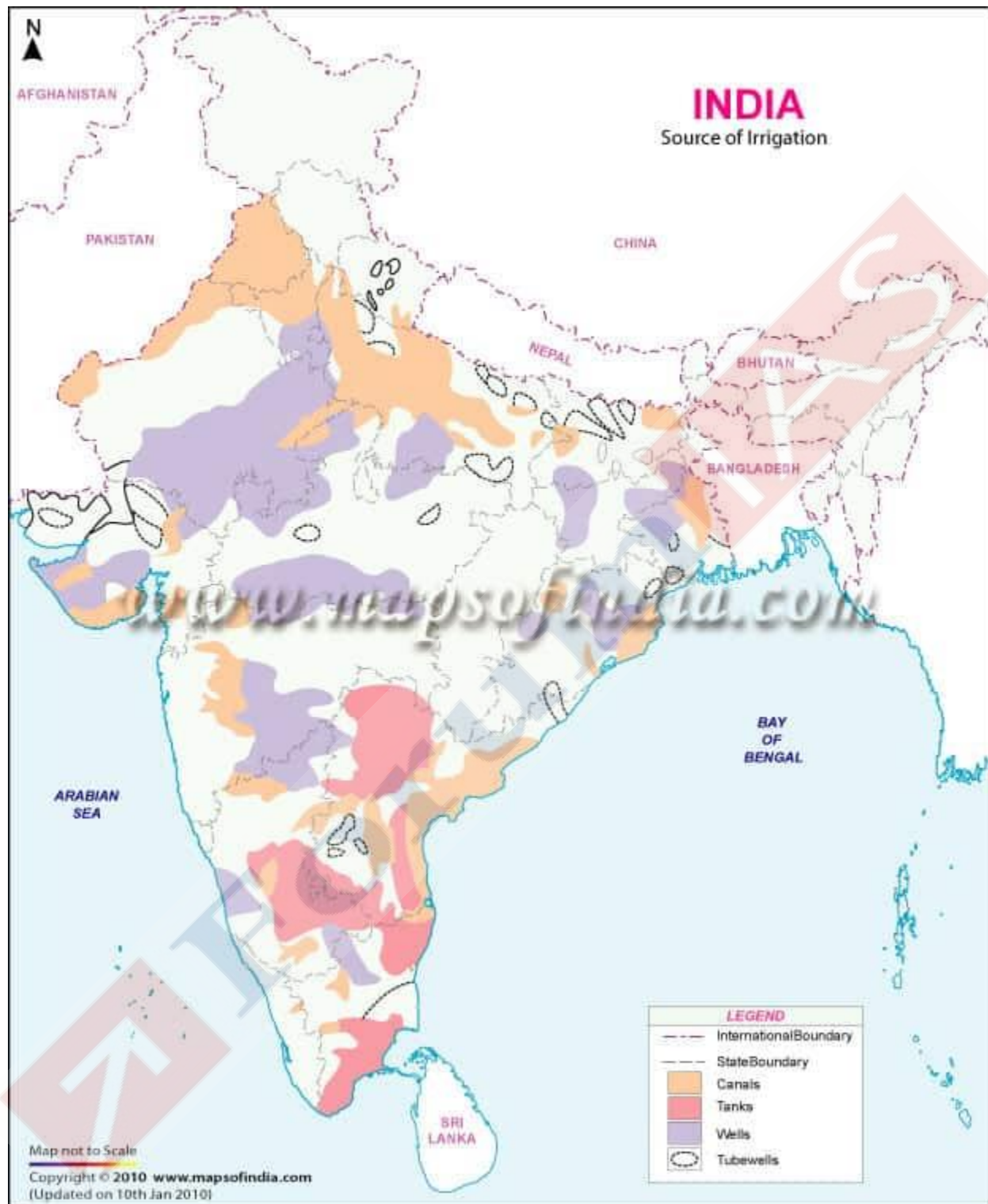
Current status of Irrigation in India:

- India is one of the world's largest irrigated areas, with roughly 68 million hectares (MHa) of gross irrigated area as of 2025.
- About 48% of India's net sown area is under irrigation, with the remainder depending on rainfall.
- Major crops like wheat and sugarcane have over 90% irrigation coverage, while pulses and oilseeds rely more on rainfed farming.

Sources of Irrigation:

- Groundwater accounts for nearly 63% of irrigated area, making India the largest user of groundwater for irrigation globally.
- Canals contribute about 24%, while tanks, wells, and other sources provide the rest.





Source: Maps of India

Types of Irrigation Systems:

1. **Surface Irrigation:** This irrigation technique, which involves flooding the entire field or a section of it with water, is the most popular. It is possible for the water to permeate the soil and get to the roots of

the crops. Surface irrigation is simple to set up and maintain, but it is inefficient since a lot of water is wasted to evaporation and runoff.

2. **Sprinkler Irrigation:** In this technique, water is applied to the crops using sprinkler heads. Droplets of water are sprayed and land on the soil's surface and leaves. Sprinkler irrigation is effective because it minimises water loss from runoff and evaporation. Although it may be used for a variety of crops, it uses a lot of energy to operate.
3. **Drip Irrigation:** This is a low-pressure irrigation technique that involves the application of water directly to the roots of the crops through a network of tubes and emitters. Drip irrigation is highly efficient as it delivers water directly to the plant roots, minimizing water loss due to evaporation and runoff. It is particularly useful for crops with shallow roots and in areas with limited water availability.
4. **Sub-surface Irrigation:** Irrigation below the soil's surface using buried pipes or porous tubes is known as sub-surface irrigation. Sub-surface irrigation is effective because it minimises water loss from evaporation and runoff by delivering water to the plant roots directly. It helps to lessen soil salinity and waterlogging, making it especially beneficial for places with high water tables or saline soils.
5. **Center Pivot Irrigation:** This method involves the use of a large sprinkler system mounted on a pivot that rotates around a central point to distribute water to crops in a circular pattern. The water is supplied through a pipeline running along the pivot, and the sprinklers distribute water evenly over a large area of land. Center pivot irrigation is efficient as it reduces water loss due to evaporation and runoff and is suitable for crops such as corn, soybeans, and wheat that are planted in rows. However, it requires a significant investment in infrastructure and energy to operate.

Need for Irrigation in India:

1. **Uneven Distribution of Rainfall:** The arrival of the monsoon is uncertain and variable, especially in areas of low rainfall, e.g., Punjab, Haryana, and Western Uttar Pradesh (High coefficient of variability). There is also variation in the spatial distribution of rainfall e.g. Meghalaya has much more rainfall than the Thar Desert.
2. **Inadequate Coverage:** Only 30% of cultivated land receives sufficient rainfall of more than 100cm. In areas of high rainfall, irrigation is necessary to increase farm productivity further. Monsoon gaps (no rain for two or more weeks during the sunny season) may damage crops without irrigation facilities.
3. **Seasonal Nature:** The monsoon is "seasonal." 75% of rainfall happens in 3-4 months of the year, and the remaining 8-9 months are marked by a dry season when irrigation is badly needed for growing crops (5 months dry in Kerala, nine months dry in North Western India).
4. **Type of Rainfall:** Rainfall in most parts of India is torrential and therefore there is less opportunity for soil to absorb water and surface water goes waste. Also, rainwater flows down very quickly along the hill slopes. Certain crops, such as rice, sugarcane, jute, and cotton, require more water and need irrigation even in areas of heavy rainfall.
5. **Problem with Monoculture:** Irrigation is necessary to end monoculture cropping practices in Indian agriculture. It is also necessary for the socio-economic transformation of rural India by making agriculture variable.
6. **Green Revolution:** Since the Green Revolution, the introduction of HYV seeds and heavy doses of chemical fertilisers have made irrigation necessary. Sandy and loamy soil can't retain water like Alluvial and black soil.

Significance of Irrigation:

1. **Enhanced agricultural productivity:** Regular and reliable water supply promotes optimal plant growth, increases land utilization, and raises per acre yields for food and cash crops. It supports

cultivation of water-intensive and high-value crops like wheat, sugarcane, and vegetables, improving farm incomes.

2. **Ensure Stable Crop Production:** Irrigation shields crops from erratic monsoons and rainfall variability, reducing dependence on rainfed agriculture and stabilizing yields.
3. **Improved food security:** Irrigation mitigates the risk of crop failure caused by drought or insufficient rainfall, thereby ensuring a stable food supply for local populations.
4. **Stimulated economic growth:** Through increased agricultural output and productivity, irrigation can create job opportunities and stimulate economic growth in rural areas.
5. **Water storage:** Building dams and reservoirs that may be used to store water for irrigation and other uses is a common part of irrigation projects. This will boost infrastructural advancements.
6. **Climate resilience:** By providing a source of water when rainfall patterns become unpredictable, irrigation can aid farmers in adjusting to climate change. Also prevents deforestation and famine.

Challenges/Limitations related to Irrigation:

1. **Over-dependence on Groundwater:** Excessive extraction of groundwater—now around 63% of total irrigation use—has led to rapidly falling water tables in several states (Punjab, Haryana, Rajasthan, UP). Unsustainable groundwater use threatens long-term availability and increases costs for small farmers.
2. **Inefficient water usage & Water loss:** Traditional canal and surface irrigation systems suffer high water loss due to seepage, evaporation, and poor maintenance. Low efficiency means less water reaches crops, especially at tail ends of canal systems.
3. **Soil degradation:** Overuse of irrigation can cause soil salinization and waterlogging, which can lead to a decline in soil quality and ultimately reduce crop yields over time.
4. **Water pollution:** Irrigation can lead to contamination of nearby waterbodies due to the runoff of fertilizers and pesticides, causing ecological degradation and water pollution.
5. **Impact on biodiversity:** Irrigation can modify natural water flows, which can disrupt wetlands and other natural habitats, leading to a reduction in biodiversity.
6. **Regional Disparities:** Western and southern regions enjoy better irrigation coverage, while eastern, central, and northeastern states remain largely rainfed.
7. **Socio-economic inequality:** While irrigation can benefit some farmers, it can also create disparities between those who have access to irrigation and those who do not, leading to social and economic inequality within the region.

Various government initiatives related to irrigation:

1. **Pradhan Mantri Krishi Sinchai Yojana (PMKSY):**
 - a. Focuses on “Har Khet Ko Pani” (water to every field) to enhance irrigation coverage.
 - b. Promotes efficient water use with the slogan “Per Drop More Crop” by encouraging micro-irrigation (drip and sprinkler) and on-farm water management.
 - c. Integrates various schemes like Accelerated Irrigation Benefits Programme (AIBP), Command Area Development (CAD), and other water conservation measures.
2. **Accelerated Irrigation Benefits Programme (AIBP):** Provides central assistance for accelerating ongoing major, medium, and minor irrigation projects to improve water storage and distribution capacity.
3. **Micro Irrigation Fund (MIF):**
 - a. Set up under NABARD with a corpus of ₹5,000 crore to promote adoption of drip and sprinkler irrigation nationwide.

- b. Encourages private investment and subsidizes equipment to improve water use efficiency.
- 4. **Atal Bhujal Yojana (ABY):** A recent scheme focusing specifically on sustainable groundwater management in water-stressed areas through community participation and demand-side management.
- 5. **Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyan (PM-KUSUM):** This initiative promotes the installation of **solar pumps** for irrigation. It has three components:
 - a. Installing standalone solar pumps.
 - b. Solarizing existing grid-connected pumps.
 - c. Setting up small solar power plants on agricultural land for farmers to sell excess power to the grid.
- 6. **Irrigation Projects:**
 - a. **The Indira Gandhi Canal:** The Indira Gandhi Canal, which is located in Rajasthan, is one of India's biggest irrigation projects. The Sutlej River's water is diverted through the 600+ km long canal and into the Thar desert. Increased agricultural production is now possible in the desert region thanks to the project's creation of irrigated land covering more than 1.8 million hectares. (CCA of 5,28,000 ha.)
 - b. **Narmada Valley Project:** In Gujarat, Madhya Pradesh, and Maharashtra, the Narmada Valley Project uses water diverted from the Narmada River to irrigate more than 1.7 million hectares of land. Millions of people receive irrigation and drinking water from the project's numerous dams, canals, and reservoirs. (CCA is 1,46,800 ha.)
 - c. **Project Krishna Godavari:** The Krishna Godavari Basin Project, which is situated in Andhra Pradesh, is one of the country's greatest river basin projects. In addition to irrigating more than 5 million hectares of land and producing hydroelectric power, the project includes a number of dams, canals, and reservoirs. As part of the project, various cities in the area receive drinking water. (CCA is 3,45,000-5,04,000 ha.)
 - d. **Sardar Sarovar Project:** Located on Gujarat's Narmada River, the Sardar Sarovar Project serves a variety of purposes. Over 1.8 million hectares of land are irrigated by the project's several dams, canals, and reservoirs, which also provide hydroelectric power. A number of the region's cities also receive drinking water from the project. (CCA of 18,45,000 ha).

Way forward:

1. **Promote Water-Use Efficiency and Micro-Irrigation:**
 - Scale up adoption of drip and sprinkler irrigation systems to conserve water and improve crop water productivity.
 - Provide subsidies, credit support, and technical training to farmers for efficient irrigation technologies.
2. **Sustainable Groundwater Management:**
 - Implement strict monitoring and regulation of groundwater extraction, especially in overexploited regions.
 - Encourage adoption of water-saving cropping patterns and recharge techniques like rainwater harvesting.
3. **Modernise Canal System:**
 - Upgrade and maintain canal infrastructure to reduce seepage and improve equitable water delivery.
 - Implement automation and remote sensing technologies for better water control and scheduling.

4. Expand Irrigation Coverage & Equity:

- Focus on neglected and rainfed regions, especially in Eastern and Northeastern India, to reduce regional disparities.
- Support small and marginal farmers through community-managed irrigation and participatory water governance.

5. Integrate Climate Resilient Practices:

- Promote drought-tolerant and less water-intensive crops along with climate-smart water management.
- Use climate forecasting and advisories to optimize irrigation scheduling.

6. Promote Renewable Energy for Irrigation: Expand use of solar-powered pumps to reduce dependence on grid electricity and diesel, ensuring sustainable, cost-effective irrigation.**Conclusion:**

The development and management of irrigation systems in India are pivotal for the sustained growth of the agricultural sector and the livelihoods of millions of farmers. By prioritising sustainable irrigation practices, India can enhance agricultural productivity, secure rural livelihoods, and contribute to the nation's economic growth.

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Contract Farming – Significance & Challenges – Way Forward

Contract farming is a significant and evolving topic in Indian agriculture, representing a formal, forward-looking link between farmers and commercial buyers. It aims to reduce market risk for farmers and ensure a consistent supply chain for companies.

Introduction:

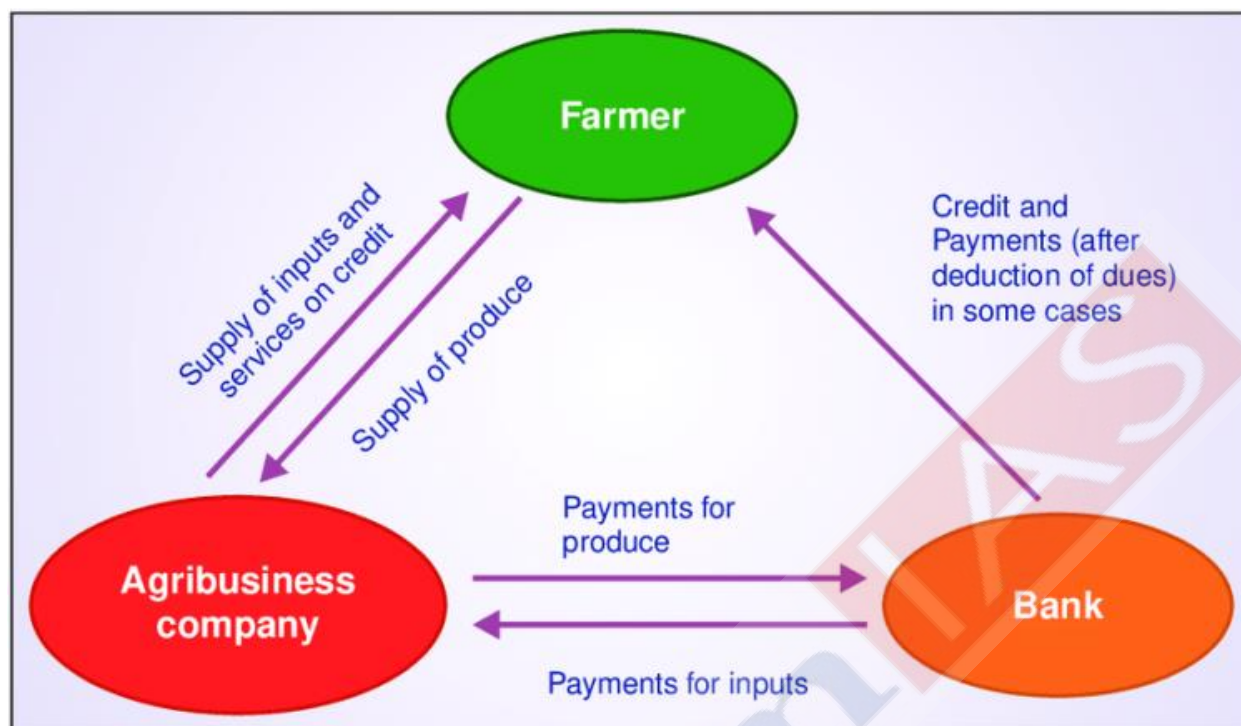
- Contract farming can be defined as agricultural production carried out according to an agreement between a buyer and farmers, which establishes conditions for the production and marketing of a farm product or products. Typically, the farmer agrees to provide agreed quantities of a specific agricultural product.
- To regulate contract farming in India, the Ministry of Agriculture came out with **a draft Model Contract Farming Act, 2018**. The draft Model Act seeks to create a regulatory and policy framework for contract farming. Based on this draft Model Act, legislatures of states can enact a law on contract farming.
- Currently, contract farming in India requires registration with the Agricultural Produce Marketing Committee (APMC) in a few states. This means that contractual agreements are recorded with the APMCs which can also resolve disputes arising out of these contracts.

Salient features of the Model Contract Farming Act, 2018:

1. The Act lays special emphasis on protecting the interests of the farmers, considering them as the weaker of the two parties entering into a contract.
2. In addition to contract farming, services contract all along the value chain including pre-production, production and post-production have been included.
3. "Registering and Agreement Recording Committee" or an "Officer" for the purpose at district/block/ taluka level for online registration of sponsor and recording of agreement is provided.
4. Contracted produce is to be covered under crop/livestock insurance.
5. Contract framing is to be outside the ambit of the APMC Act.
6. No permanent structure can be developed on farmers' land/premises.
7. Promotion of Farmer Producer Organizations (FPOs)/Farmer Producer Companies (FPCs) to mobilise small and marginal farmers has been provided.
8. It ensures buying of the entire pre-agreed quantity of one or more of agricultural produce, livestock or its product of the contract farming producer as per the contract.
9. Contract Farming Facilitation Group (CFFG) is being created for promoting contract farming and services at village/panchayat the level provided.
10. An accessible and simple dispute settlement mechanism at the lowest level possible is provided for the quick disposal of disputes.

How does Contract Farming work?

- Under contract farming, farmers can be given seeds, credit, fertilizers, machinery and technical advice so that their product is tailor-made for the requirements of the companies.
- There would be **no middlemen** involved and farmers would get a predetermined sale price from the companies.
- The farmer does not have to make trips to the mandis nor worry about getting seeds and credit for farming operations.
- By entering into a contract, the farmer reduces the risk of fluctuating market demand and prices for his produce and the companies reduce the risk of non-availability of raw materials.



Objectives of Contract Farming:

1. To promote a steady source of earnings at the individual farmer level.
2. To expand private sector investment in agricultural business.
3. To inspire financially rewarding employment opportunities in rural communities, especially for landless agricultural labour.
4. To bring down the burden of central and state-level procurement systems.
5. To minimize migration from rural to urban areas.
6. To create a market focus on crop selection by Indian farmers.
7. To promote value addition and processing.
8. To bring down as far as feasible, any seasonality associated with such employment.
9. To encourage rural self-reliance by pooling locally available resources and expertise to meet new challenges.

Advantages of Contract Farming:

1. Contract farming ensures a consistent supply of agricultural produce with quality, at the right time and lesser cost resulting in better control over the factors of production.
2. Farmers benefit from assured procurement and price stability, reducing uncertainties in agricultural marketing e.g. HyFun Foods procured 300,000 tonnes of potatoes from 6,000 farmers in Gujarat in 2023-24 and plans to engage 20,000 farmers by 2027-28 across 80,000 acres.
3. Assured supply aids food processing industries in better supply chain management. It reduces the demand-supply gap by plugging supply-side constraints. Contract farming also enables the food processing industries to invest in warehouses, cold storage and design the logistics in the long term.
4. It makes small-scale farming competitive. Small farmers can access technology, credit, marketing channels and information while lowering transaction costs. They are assured the market for their produce at their doorsteps, reducing marketing and transaction costs.

5. It reduces the risk of production, price and marketing costs. Contract farming can open up new markets which would otherwise be unavailable to small farmers, thereby reducing intermediaries thus providing more options to farmers.
6. Contract farming also ensures higher production of better quality, financial support in cash and /or kind and technical guidance. It enables optimal utilisation of installed capacity, infrastructure and manpower, and responds to food safety and quality concerns of the consumers.
7. It leads to direct private investment in agricultural activities as they find it profitable. The farmers enter into contract production with an assured price under terms and conditions.

Challenges/Limitations of Contract Farming:

1. Small and marginal farmers may not be roped in for this form of farming because companies may want a particular size of the crop which small farmers with their small parcels of land may not be able to produce. So, this will leave out the most vulnerable farmers from the ambit of corporate farming.
2. **A medium** sized farmer may not be literate enough to understand the nitty-gritty of the contract and all the clauses, and if the product does not meet the standards of the company, he may face mass rejection.
3. The farmer may be forced to produce only one type of crop year after year which will lead to monoculture, This invariably leads to the deterioration of soil.
4. Predetermined prices do not take care of food inflation and in case there is a price rise of the product, the farmer cannot take advantage and make a windfall profit because he is under contract to sell at the price agreed upon beforehand.
5. The average farmer being poor and semi-literate has little bargaining power vis-à-vis big corporations and hence there is little chance of his getting a fair price for his produce.
6. Informal or weakly enforced contracts limit farmers' legal recourse, leaving them exposed to unfair practices, such as stricter quality standards during bumper crop seasons.
7. A single buyer engaging with multiple farmers creates dependency, reducing farmers' negotiating power and enabling firms to dictate terms and maximize profits.

Way Forward:

1. Design policies specifically benefiting small-scale farmers, ensuring equitable terms, access to inputs, and fair prices to prevent marginalization.
2. Foster more competition to incentivise firms to offer better terms and services to the farmers. Steps should be taken to improve farmers' connectivity to spot markets and mandis across the country.
3. Information asymmetry should be addressed by maintaining an information repository of farmers, contracting firms, land availability, default rate and performance standards. This will help farmers and sponsors to evaluate each other prior to engaging in contracts.
4. Efforts should be made to encourage softer means for enforcement such as risk-sharing mechanisms in contracts, renegotiation options, and simplified and transparent contract terms.
5. Emphasis should be given to education and awareness regarding Farmer's rights. This can be done by leveraging Farmer Produce Organisations (FPO) and cooperative farming models.
6. Technology should be leveraged and Research and Development should be promoted. for contract registration, price monitoring, and grievance redressal to enhance transparency and efficiency in contract farming operations. Some of the areas which can be explored are:
 - GIS/Remote Sensing
 - Soil Mapping
 - Crop Clinics

- Farm experimental Facilities
- Artificial Intelligence

Conclusion:

Contract farming is therefore seen as a key strategy to modernize India's supply chains and reduce agricultural risk, provided the regulatory framework remains strong enough to protect the interests of the small farmer.

UPSC GS-3: Agriculture

Read More: [Down To Earth](#)

Buffer Stock – Significance & Challenges – Explained Pointwise

The buffer stock is a core component of India's food management policy, acting as an economic safety net for both farmers and consumers. It represents the strategic reserve of food grains held by the government to manage shortages, stabilize market prices, and ensure adequate food supply, particularly for vulnerable populations.

Introduction:

- Buffer stock refers to a reserve of a commodity that is used to stabilize price fluctuations and unforeseen emergencies. The concept of buffer stock was first introduced during the 4th Five Year Plan (1969-74).
- In India, buffer stocking of foodgrains is conceptually seen as a method to deliver strategic food and agricultural domestic support policies. Through these, the government caters multiple objectives such as providing famine relief, ensuring food security to consumers and providing production incentives to farmers.
- The responsibility for procuring, storing, and distributing the buffer stock lies primarily with the Food Corporation of India (FCI).

Buffer Stock Norms in India:

- The cabinet committee on Economic Affairs fixes the minimum buffer norms on quarterly basis: i.e as on 1st April, 1st July, 1st October and 1st January of every financial year.
- It is estimated that as on 1st of July 2025, approximately 358 LMT wheat and 377 LMT rice is available in the central pool, against the buffer norms of 275 LMT of wheat and 135 LMT of rice (LMT = Lakh MT).
- The central pool includes Operational Stocks and Strategic Reserves. Operational stocks meet monthly requirements under TPDS. Strategic reserves/food security stocks meet any shortfalls in future procurement.

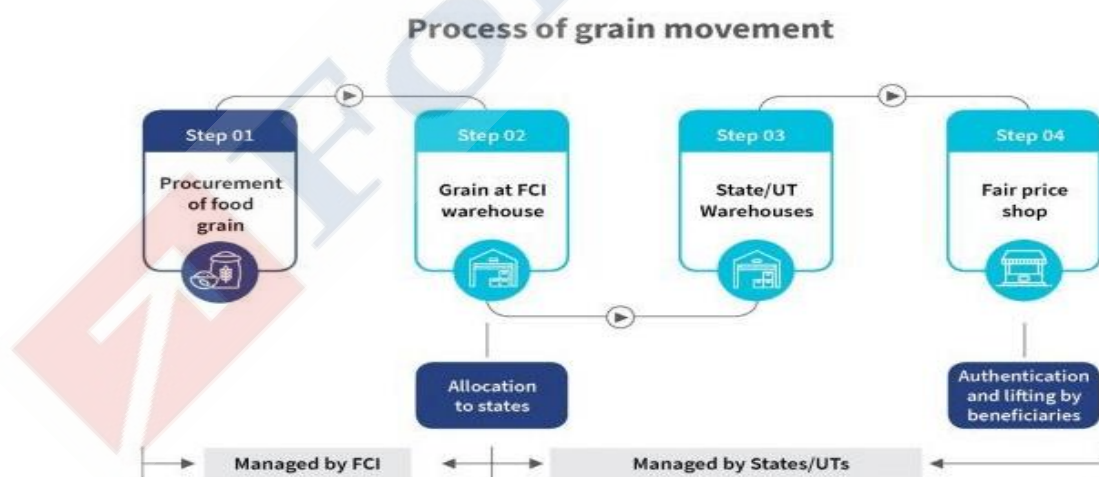
Objectives of Buffer Stock:

Consumption Side	Food Security and Distribution:
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	<ul style="list-style-type: none"> • Counter Famine/Shortage: To provide a continuous supply of food grains during periods of crop failure, natural disasters, or other crises where agricultural production falls short. • Public Distribution System (PDS): To supply grains to the Public Distribution System (PDS) and other welfare schemes (like the National Food Security Act, 2013), ensuring subsidized food reaches the poor.
Production Side	<p>Price Stabilization:</p> <ul style="list-style-type: none"> • Price Floor for Farmers: To provide stability by purchasing grains from farmers at the Minimum Support Price (MSP). This guarantees a remunerative price, preventing distress sales and encouraging production. • Price Ceiling for Consumers: To control market prices. If open market prices rise too sharply, the government releases grains from the buffer stock to increase supply and bring prices down.

Procurement Process:

1. **Minimum Support Price (MSP):** Before each cropping season (Kharif and Rabi), the government announces the MSP for key crops, including paddy (rice) and wheat.
2. **FCI Purchases:** Farmers sell their produce to the FCI and state agencies at the MSP. This assures farmers of a guaranteed income.
3. **Stock Accumulation:** The procured stock is stored in godowns (warehouses) across the country, managed by the FCI, and is rotated regularly to prevent spoilage.



Significance of Buffer Stock:

1. **Price stabilization:** Buffer stock aims to stabilize the prices of food grains, by regulating their supply in the market. The government intervenes in the market during periods of production fluctuations, natural disasters, or price volatility.
2. **Consumer Protection:** When necessary, the FCI releases stock into the open market through schemes like the Open Market Sale Scheme (OMSS) to cool down inflationary pressure on food prices.
3. **Food security:** Maintaining buffer stocks ensures a sufficient supply of foodgrains to meet the nutritional needs of the population and prevent food shortages. The government releases minimum buffer stock norms to ensure food security. It mitigates the adverse effects of production failures, natural calamities, or unforeseen events on the availability and prices of essential commodities.
4. **Welfare scheme:** The buffer stock serves as the backbone of India's social welfare system. The government utilizes this buffer stock to disperse the foodgrains to more vulnerable segments of the general public through a public distribution system, at lower than the market value which is otherwise called the issue cost.
5. **Increase farmers income:** By procuring grains at Minimum Support Prices (MSP), buffer stocks provide assured income to farmers, especially during years of excess production. This guarantees that farmers are shielded from price crashes in the open market.
6. **Market Intervention/ Supply Management:** Buffer stocks enable the government to intervene in markets and correct imbalances by releasing grains during supply shortages or surplus production, thereby preventing extreme price fluctuations that can harm consumers or farmers.
7. **Export Opportunities:** Buffer stocks, when managed efficiently, can also create opportunities for exporting surplus grain during years of good harvests, enhancing foreign exchange earnings and ensuring optimal use of excess production for e.g. Surplus wheat from buffer stocks was exported in 2021 to countries in South Asia and Africa, boosting India's presence in global grain markets.

Challenges related to Buffer Stock:

1. **Procurement cost:**
 - There are multiple costs involved in the procurement of buffer stock by FCI, which include handling expenses, storage cost, normal loss, administrative cost, rural development cess.
 - MSP is also being increased by the government which is raising the overall cost of procurement. The food subsidy bill is continuously increasing the burden of buffer stock cost.
2. **Storage Infrastructure:** India's current storage infrastructure is inadequate, with over-reliance on conventional godowns that lead to poor handling and spoilage of grains. The lack of modern silos results in significant post-harvest losses.
3. **High Maintenance Cost:** Maintaining large buffer stocks involves high operational costs, including storage, transportation, and procurement expenses, which put a strain on public finances. These rising costs can make the entire process unsustainable over the long term.
4. **Pilferage and Theft:** The buffer stock system faces challenges of pilferage and theft due to poor security measures and leakages in the distribution network. This results in substantial losses and reduced effectiveness of stock management.
5. **Quality Degradation:** Grains stored for extended periods under poor conditions often suffer from quality degradation, leading to reduced nutritional value. This is particularly an issue with traditional godowns, which lack proper ventilation and protection against pests.
6. **Logistical Challenges:** The transportation and movement of buffer stocks, especially across remote regions, present logistical hurdles. The delay in moving grains from one region to another leads to bottlenecks and mismanagement, affecting timely availability.

7. **Environmental Concerns:** The storage and movement of large buffer stocks also have environmental impacts, including carbon emissions from transportation and the use of non-eco friendly materials in storage.

Way Forward:

1. **Modernization of Storage Facilities:** India should modernize its storage infrastructure with climate-controlled silos to reduce post-harvest losses and maintain grain quality over time for e.g. The government has initiated a pilot project in 11 PACS under its ambitious grain storage plan, aiming to build 700 lakh metric tons of storage capacity over five years with Rs 25 lakh crore investment.
2. **Improved Inventory and Supply Chain Management:** Leveraging digital tools such as blockchain and IoT for real-time tracking of stocks and distribution can ensure efficient management for e.g. The Smart Warehouse Management System implemented by FCI aims to streamline grain storage and reduce leakages.
3. **Policy Reforms in Buffer Stock Management:** Reforming PDS and buffer stock norms, introducing decentralized procurement and localized storage will enhance the efficiency of stock utilization.
4. **Incentives for Private Sector Participation:** Encouraging public-private partnerships (PPPs) in building modern storage infrastructure and adopting efficient supply chain models can reduce the burden on government agencies and ensure better grain management.
5. **Sustainable and Eco-Friendly Practices:** Adopting green technologies such as solar-powered cold storage and eco-friendly packaging can make buffer stock management more sustainable, reducing its environmental impact.
6. **Enhanced Focus on Regional Disparities:** Addressing regional imbalances in buffer stock storage and distribution is key to ensuring food availability across all parts of India. Establishing regional buffer stock hubs and better connectivity to remote areas will help mitigate logistical challenges.

Conclusion:

The future of India's buffer stock system lies in modernization, digital integration, and sustainability. By focusing on reforms, innovation, and eco-friendly practices, the government can overcome existing challenges and transform buffer stock management into a robust and efficient mechanism.

UPSC GS-3: Agriculture

Read More: [Arthapedia](#)

National Food Security Act – Provisions, Significance & Challenges – Explained Pointwise

India's journey towards food security reached a significant milestone with the enactment of the National Food Security Act (NFSA) 2013, transforming the "right to food" into a legal entitlement and marking a shift from a

welfare to a rights-based approach.



Introduction:

- The National Food Security Act of 2013 was enacted with the objective of providing food and nutritional security by ensuring access to adequate quantity of quality food at affordable prices for people to live a life with dignity.
- The Act covers up to 75% of the rural population and up to 50% of the urban population for receiving subsidized good grains under the Targeted Public Distribution System (TPDS), thus covering about two-thirds of the population.

Important Provisions:

- Under NFSA, the government is obliged to give subsidized foodgrains every month to the beneficiaries identified by each state government based on the economic status of households.
- **Identification of Beneficiaries:** The identification of eligible households is done by the State Governments, adhering to inclusion/exclusion criteria set by the central government.
- **Two categories of beneficiary households:**
 - **Antyodaya Anna Yojana (AAY):** AAY households receive 35 kg of foodgrains monthly.
 - **Priority Households (PHH):** Each PHH member gets 5 kg of foodgrains monthly, including rice at Rs 3/kg, wheat at Rs 2/kg, and coarse grain at Rs 1/kg.
- **Nutritional Support for Children:** Children between 6 months and 14 years receive nutritious, free meals through the Integrated Child Development Services (ICDS) and Mid-Day Meal (MDM) schemes.
- **Maternity Entitlement:** Pregnant women and lactating mothers are entitled to a maternity benefit of at least ₹6,000 for six months to partially compensate for wage loss and ensure nutritional support.
- **Institutional Framework:**
 - Establishes State Food Commissions for monitoring and implementation.
 - Creates a grievance redressal mechanism at district level.

- Mandates transparency and accountability through social audits.

Significance of the Act:

1. Philosophical Shift: From Welfare to Rights:

- The most significant contribution of the NFSA is the paradigm shift it mandated in India's approach to public assistance.
- By explicitly stating that food access is a legal right for two-thirds of the population, the NFSA ensures that the government is legally obligated to provide subsidized food grains. This allows citizens to seek judicial recourse if entitlements are denied, fundamentally changing the relationship between the state and the beneficiary.

2. Food & Nutritional Security:

- Through the Public Distribution System (PDS), the Act ensures monthly entitlements of rice, wheat, and coarse grains at highly subsidized rates to over 810 million beneficiaries.
- By guaranteeing affordable access to staples, the NFSA combats undernutrition and food insecurity among the poor.
- It reduces vulnerability to food price shocks, safeguarding low-income households against hunger.

3. Enhanced Social Inclusion:

- Prioritizes marginalized sections, including SC/STs, women, and children, helping to address inequality.
- Ensures women's empowerment with provisions for female household heads as ration card holders.

4. Poverty Reduction:

The assured supply of foodgrains acts as a form of income transfer. By reducing household expenditure on essential food items, it frees up a significant portion of the income of poor families, allowing them to spend on education, health, and other needs. This indirectly aids in poverty reduction.

5. Crisis Management:

During national crises, such as the COVID-19 pandemic, the NFSA mechanism allowed the government to immediately scale up distribution (e.g. through schemes like PMGKAY), ensuring no person went hungry when livelihoods were lost. The existing buffer stock and distribution network were instrumental in this massive relief effort.

6. Driver of PDS Reforms & Accountability:

The NFSA necessitated and accelerated long-pending reforms in the Public Distribution System (PDS), drastically improving its efficiency and reducing leakage such as:

- **Technology Integration:** The mandate for effective delivery led to the widespread adoption of e-PDS (electronic PDS), including Aadhaar linking and the use of Point of Sale (PoS) devices at Fair Price Shops. This has significantly eliminated "ghost" beneficiaries and reduced the diversion of grains.
- **Grievance Redressal:** The requirement for state-level and district-level Grievance Redressal Officers and mandatory Vigilance Committees has built a layer of institutional accountability into the food distribution system, enhancing transparency.
- **Portability (ONORC):** The success of the NFSA is closely tied to the One Nation, One Ration Card (ONORC) scheme, which ensures that NFSA entitlements are portable. This means a beneficiary can collect their subsidized food grains from any Fair Price Shop (FPS) across the country, hugely benefiting migrant workers.

Challenges/Limitations of the Act:

1. Leakages and Inefficiency in PDS:

- Persistent leakages, diversion of foodgrains, and corruption in the Public Distribution System (PDS) undermine efficient delivery of benefits.
- Errors in beneficiary identification and exclusion/inclusion issues result in deserving households missing out or ineligible ones receiving benefits.

2. Quality of Foodgrains:

- Beneficiaries often receive poor-quality or spoiled food grains, undermining the nutritional objectives of the Act.
- There is little provision within the Act for pulses, oils, or more nutritious foods.

3. Fiscal Burden and Sustainability:

- **Food Subsidy:** The difference between the Minimum Support Price (MSP) paid to farmers and the Central Issue Price (CIP) charged to beneficiaries (₹1, ₹2, ₹3) is borne by the government as the food subsidy. This subsidy is one of the largest items of non-developmental expenditure, putting pressure on the national fiscal deficit.
- **Buffer Stocks:** Maintaining adequate buffer stocks for distribution requires significant investment in storage and incurs heavy costs related to interest, storage, and wastage.

4. Supply Chain and Infrastructure Gaps:

- Shortcomings in logistics, transportation, and storage infrastructure lead to wastage and inefficiency.
- Old and insufficient warehouses, especially in remote regions, make timely and quality delivery challenging.

5. Exclusion and Inclusion Errors:

- **Exclusion Errors:** Genuinely poor and eligible households are left out of the list (often due to outdated data or complex documentation requirements), meaning those who need the food the most don't receive it.
- **Inclusion Errors:** Non-poor or ineligible households manage to acquire subsidized ration cards, leading to wastage of public resources.
- Migration, urbanization, and inter-state movement are not addressed adequately.

6. Limited Nutrition Focus:

- The Act focuses mainly on calorie security through grains, neglecting dietary diversity and micronutrient requirements.
- Provisions for pulses, oils, and fresh foods are minimal or absent.

7. Functioning of Fair Price Shops (FPS): While the implementation of PoS devices has improved transparency, challenges remain. These include internet connectivity issues in remote areas, resulting in transaction failures, and residual corruption by FPS dealers regarding timing, weighing, and behavior.**8. Weak Enforcement:** State-level Grievance Redressal Officers (GROs) often lack the authority, resources, or political will to effectively penalize violators or ensure timely resolution of complaints. The mandated Vigilance Committees are often defunct or non-functional.**Way Forward:**

- Updating Population Coverage:** The Act must be amended to use current population estimates instead of the rigid 2011 Census figures. This change is crucial to include families who have moved into poverty or who were born after 2011, thereby reducing exclusion errors.
- Dynamic Exclusion Criteria:** Instead of relying solely on old BPL (Below Poverty Line) lists, states should implement dynamic exclusion criteria using technology and data points (e.g., vehicle

ownership, government employment status, electricity consumption) to regularly update and clean beneficiary lists.

3. **Universalizing ONORC:** While the One Nation, One Ration Card (ONORC) scheme has been implemented, continuous investment in seamless biometric and internet infrastructure is needed. The goal should be to make ration portability a frictionless experience, especially for internal migrant workers.
4. **Mandating Fortification:** Central and state governments should mandate the fortification of all rice and wheat supplied through the PDS with essential micronutrients like Iron, Folic Acid, and Vitamin B12. This is a highly cost-effective public health measure.
5. **Integrating with Local Produce:** Pilot programs should be launched to link Fair Price Shops (FPS) with local self-help groups (SHGs) or farmer producer organizations (FPOs) to provide seasonal, locally sourced, and subsidized fresh fruits and vegetables to beneficiaries, particularly through ICDS and Mid-Day Meal schemes.
6. **Smart Procurement and Storage:** Modernize the food supply chain by shifting from traditional bag storage to steel silos and implementing End-to-End Computerization of the PDS. This drastically reduces storage costs and physical wastage (spoilage and theft).

Conclusion:

The NFSA can evolve from a basic food distribution program into a dynamic, transparent, and nutrition-sensitive social security pillar for the nation if its challenges are addressed & next-gen reforms are implemented properly.

UPSC GS-3: Agriculture

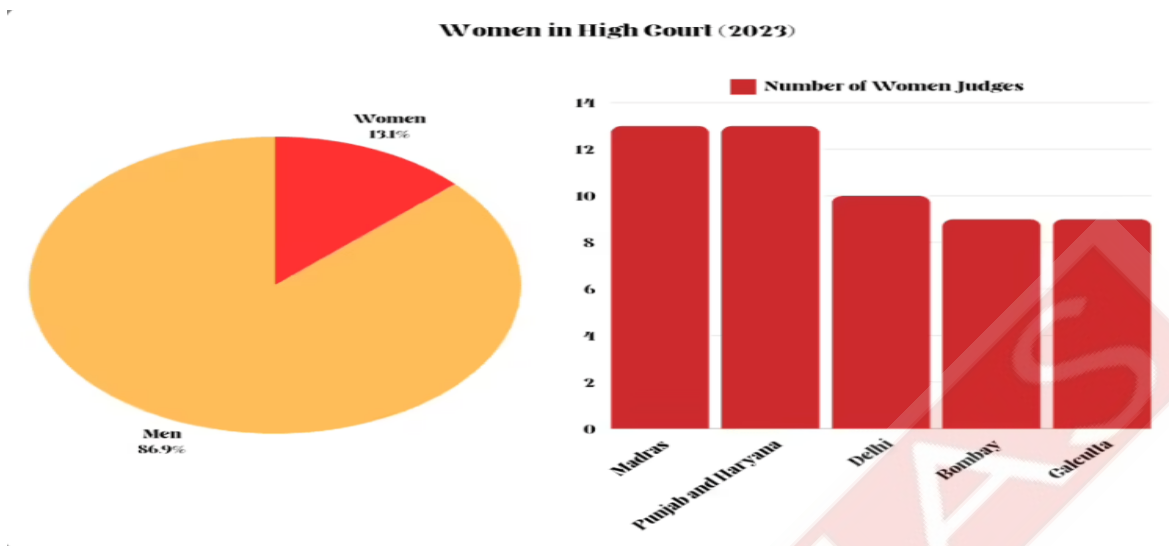
Read More: [Vikaspedia](#)

Women Representation in Judiciary – Significance & Challenges – Explained Pointwise

The women's representation in India's judiciary shows significant underrepresentation at higher levels, with better but still insufficient numbers in the lower judiciary. The "glass ceiling" remains strong for women judges, especially in promotions to higher courts. Minority and marginalized women face even greater barriers to advancement.

What is the Status of Representation of Women in Judiciary?

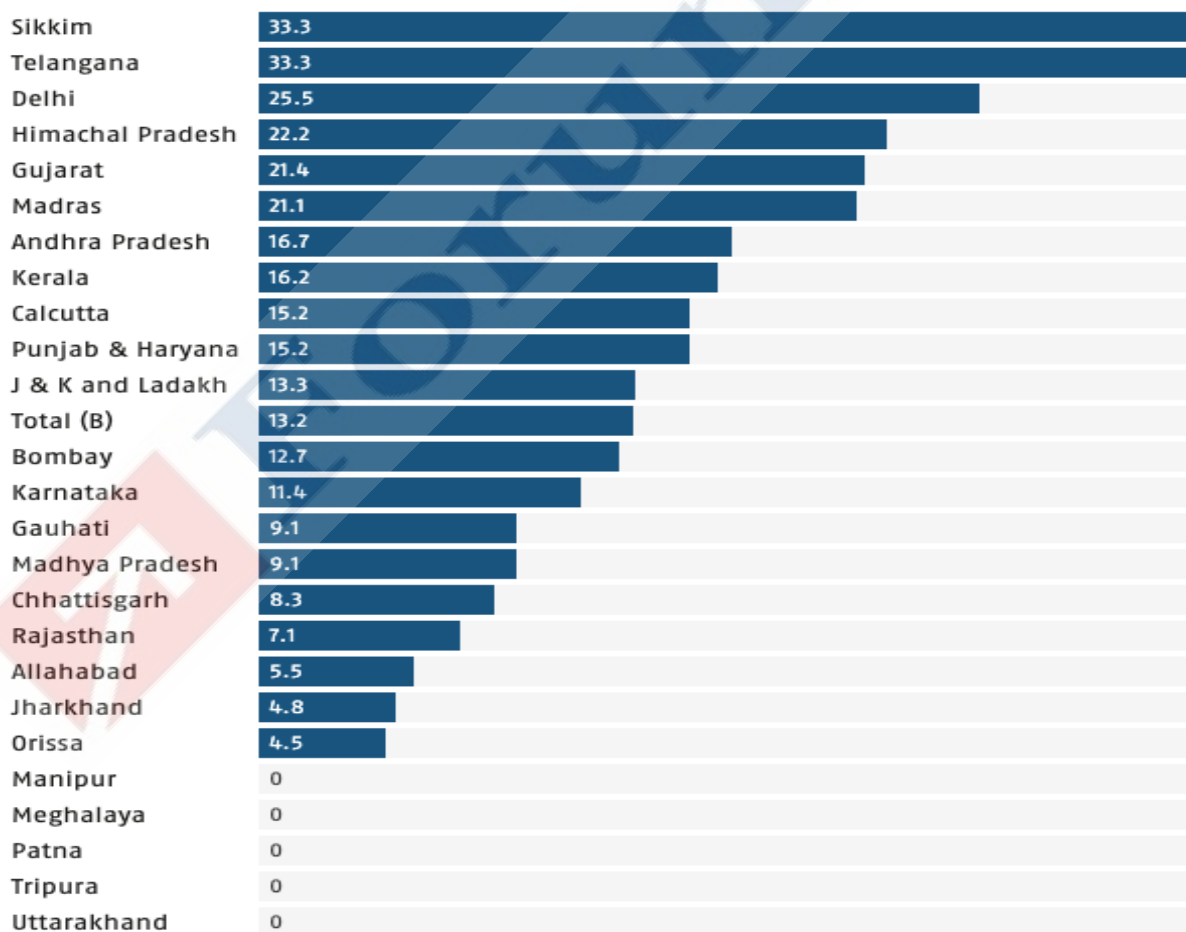
- **Supreme Court:**
 - As of 2025, only 1 woman judge (Justice B.V. Nagarathna) serves out of 34 judges, yielding a representation of just 2.9%.
 - In its entire history since 1950, only 11 women judges have ever been appointed to the Supreme Court (Of them, 6 have been appointed since 2014 and 5 since 2018) — just 3.8% out of 287 total appointments.
 - No woman has held the Office of Chief Justice of India.
- **High Courts:**
 - Collectively for all High Courts, Women Judges constitute only 13.1% of the Judges.



- However, there are considerable variations among High Courts (HCs). 5 HCs have not a single woman Judge. Another 7 HCs have < 10% Women Judges. Sikkim and Telangana HCs have the highest representation at 33.3%.

Five HCs did not have a single woman judge

(women, % of total working strength of judges in High Courts)



- **District & Subordinate Judiciary:**
 - Women Judges constitute ~35% of the Judges in the lower courts. Here the proportion varies from 19.5% in Gujarat to 70% in Goa.
 - As of 2025, 7,852 women judges serve in district and subordinate courts.
 - 17 of the 36 States and UTs had a smaller proportion of women in the lower judiciary than the national average.
- Out of 1.7 million advocates in the country only 15% are women. Only 2% elected representatives in the State Bar Councils are women.

What are the reasons for Low Representation of Women in Judiciary?

1. **Judicial Rules:**
 - Article 233 puts the condition of 7 years of practice as an advocate to be eligible for appointment as District Judge. The Judiciary has interpreted this as 7 years of continuous practice.
 - Most States' Judicial rules dictate a minimum age of 35 years for entry as a district judge through direct recruitment. No one below the age of 55 years can be appointed as a judge in the Supreme Court. Marriage and Family responsibilities in this age group reduces the ability of women to compete for roles in the Judiciary.
2. **'Leaking Pipeline' Syndrome:**
 - The leaking pipeline syndrome is often used as a metaphor for the way **women disappear as they move from lower to higher levels**.
 - The phenomenon of the leaking pipeline is witnessed across a spectrum of careers including the Judiciary (~35% Judges in Lower Courts to ~11% in the SC).
 - Family responsibilities, personal choices, long working hours and work-life conflict, working conditions, lack of access to employment opportunities, barriers to advancement, inadequate support from family results in women frequently dropping out mid-career.
 - This 'voluntary withdrawal' masks the tacit consent given to patriarchally prescribed gender roles.
3. **Opaque Recruitment Process (Collegium System):** There are comparatively more women in the lower tiers of Judiciary due to the **presence of formal qualifications and examinations**. Such an arrangement is more rational and transparent. Appointments to Higher Judiciary are undertaken through an opaque Collegium System where the eligibility and selection criteria are not known. Critics of the collegium system say appointment depends upon favourable evaluations and professional/personal networks.
4. **Uncomfortable Environment:** The environment is hostile and sexist making it difficult for female litigators to grow as professionals. According to a Research Paper '**Structural and Discretionary Bias: Appointment of Women Judges in India**' 13 Judges out of 19 interviewed acknowledged the gender bias that exists in the appointment procedure of Judges to the Supreme Court and the High Courts.
5. **Lack of Supportive Infrastructure:** The dearth of supportive provisions and infrastructure, from toilets to maternity leave, also contribute to a high attrition rate amongst women lawyers. In 6,000 courts across the country, 22% of them do not have separate toilets for women. As a result, many women law graduates prefer to join the corporate sector.
6. **Lack of Enabling Provisions:** While quotas for women have been implemented in the lower courts of many states, these policies are yet to be implemented in the Higher Judiciary. States like Assam, Rajasthan, Andhra Pradesh, Telangana, Odisha have these enabling provisions and have > 40% Women Judges.

What are the impacts of Low representation of Women in Judiciary?

1. Prejudice in Judgements:

- Critics argue that lack of gender perspective leads to prejudiced Judgments e.g. In August 2020, the High Court of Madhya Pradesh granted bail to a molester on the condition that he will get a rakhi tied by the victim.
- Sometimes Judgments tend to uphold the “behavioural ethics” of Indian women (i.e., how ideal women should behave) e.g., in June 2020, while granting bail to a rape accused, the Karnataka High Court observed that the “*after-rape behaviour of the victim is not how a rape victim ‘ideally behaves’*”.
- The basis of such judgements is limited to the ideal dignity of a woman, and not on the criminal nature of the act itself.

2. Narrowing the Scope of Law: Women judges often bring lived experiences that push the boundaries of jurisprudence, introducing new legal concepts related to **equal opportunity, sexual harassment (e.g. Vishaka Guidelines in India)**, and reproductive rights. Low representation means these vital areas of law may progress slowly or remain undeveloped.

3. Deficiencies in Legal Reasoning: The ability of the legal system to understand and respond to different social circumstances and experiences is enriched by more judicial diversity. If there is not adequate women’s representation, the justice system will not be able to meet the needs of women and other underserved communities.

4. Impact on Access to Justice: Women litigants, especially those from economically weaker sections, often feel more comfortable and confident presenting their cases before a female judge. The lack of women on the bench can deter women from seeking legal recourse in sensitive matters, contributing to a **justice gap**.

5. Undermining of Gender Equality & Causing Trust Deficit: Lack of women representatives in courts give rise to questions about the courts’ legitimacy as representatives of the societies they serve. A judiciary that does not reflect nearly half the population lacks legitimacy and fails the principle of representative justice.

6. Lack of Role Models: High-ranking women judges serve as powerful **role models and sources of inspiration** for young girls and women entering the legal profession and other fields. Their visibility breaks stereotypes about women’s capacity for leadership and high office.

What should be the way forward?

1. Gender-Based Affirmative Action: Implement a policy where a certain percentage (e.g. 30% where feasible) of judicial positions, particularly at the **District and High Court level**, are reserved for women. While the Supreme Court appointments are based on seniority and merit, High Court recommendations must proactively seek out qualified women candidates.

2. Mandatory Inclusion in Selection Committees: Ensure that all shortlisting and selection bodies, including the Collegium (at the Supreme Court level) and State-level committees, include **at least one woman member**. This inclusion brings diversity to the decision-making process itself, challenging inherent biases during candidate evaluation.

3. Lateral Entry from Academia: Encourage and facilitate the lateral entry of women with strong academic backgrounds (law professors, legal scholars) into the mid-level judiciary or as judges in specialized tribunals. This broadens the entry point beyond traditional litigation tracks.

4. Addressing Family and Work-Life Balance: The biggest hurdle for women in the legal field is often the lack of institutional support for work-life balance. Judicial academies and the bar associations should advocate for:

- **Childcare Facilities** within court complexes.
 - **Flexible Timings** for female lawyers and judges, particularly during early motherhood.
 - **Adequate Maternity Leave** policies that do not negatively impact seniority or career progression.
5. **Better Infrastructure:** Provide basic, dignified infrastructure in all courts, especially at the lower judiciary level (e.g. separate, well-maintained washrooms and retiring rooms), to support the comfort and safety of women lawyers and judges.
 6. **Eliminating Gender Bias Training:** Introduce mandatory, regular **gender sensitization and unconscious bias training** for all sitting judges, law clerks, and court staff. This is essential to create a neutral and respectful court environment for female advocates and litigants.
 7. **Mentorship and Support Networks:** Establish formal mentorship programs where senior women judges and lawyers mentor junior female colleagues, helping them navigate the systemic challenges and stay in the profession long enough to be considered for elevation.

Conclusion:

Bridging the gender gap in the judiciary will ensure that the judiciary is not only *independent* but also truly *representative* of the society it is tasked with serving.

UPSC GS-2: Indian Judiciary

Read More: [The Hindu](#)

Health Insurance – Significance & Challenges – Explained Pointwise

Universal Health Care (UHC), envisioned by the Bhore Committee (1946), remains distant for India even after eight decades. While PMJAY and SHIPs have expanded formal coverage to over 80% of the population, they raise questions about sustainability, equity, and the future of India's public health system.

Status of Health Insurance Coverage in India:

- **National coverage rate:** Approximately 55% of households have some form of health insurance (government or private), up from 41% in 2021.
- **Ayushman Bharat-PM-JAY:** India's largest public health insurance plan now covers 107 million families (over 40% of the population).
- **Private insurance:** Over 30% of insured individuals are covered by private plans, with premiums ranging from ₹5,000–₹20,000 per person per year.

Significance of health insurance:

1. **Preventing Catastrophic Expenditure:** Health expenses, particularly for hospitalization (secondary and tertiary care), are a leading cause of families falling into poverty (About 7% of India's population is pushed into poverty annually due to out-of-pocket healthcare expenses). Health insurance, especially schemes like PMJAY, absorbs these unpredictable & high costs.
2. **Access to Quality Healthcare:** Insurance enables timely access to private and public healthcare services, allowing for cashless treatment and routine or emergency procedures.
3. **Formalizing the Healthcare Sector:** Insurance requires detailed record-keeping, standardized billing, and adherence to treatment protocols. This forces hospitals to adopt better transparency and accountability, which is essential for improving the quality of care and curbing over-billing practices.

4. **Social Impact & Health Equity:** Health insurance schemes, especially government-led ones like Ayushman Bharat, improve inclusivity by covering low-income, rural, and vulnerable populations. They contribute to improved national productivity, lower mortality, enhanced wellbeing, and reduction of catastrophic health expenditures.

Various initiatives to expand the health insurance coverage:

1. **Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (PM-JAY):**
 - Launched in 2018, PM-JAY offers ₹5 lakh annual cover per family for hospitalizations.
 - Covers secondary and tertiary care, both public and private hospitals nationwide.
 - Significant extension in 2025 to individuals aged 70 and above.
2. **State Health Insurance Programmes (SHIP):**
 - **Rajiv Aarogyasri** (AP, Telangana): Focused on BPL and serious illnesses.
 - **Arogya Karnataka:** Universal coverage aspirations with diagnostics, hospitalization.
 - **CMCHIS** (Tamil Nadu), **Bhamashah Swasthya Bima** (Rajasthan), and others provide cashless treatment and significant annual coverage.
3. **Health & Wellness Centres (HWCs):** Transformation of over 1.7 lakh sub-centres and PHCs into HWCs by 2024, offering primary healthcare and linking insurance benefits closer to communities.
4. **Ayushman Bharat Digital Mission (ABDM):** ABDM is creating unique digital health IDs (ABHA) for every citizen. This infrastructure is vital for the future, as it will allow beneficiaries' medical records and insurance claims to be linked digitally, making the entire process of enrollment and portability seamless.
5. **Mandated standardized policies** (e.g. Arogya Sanjeevani), reducing complexity and improving transparency for customers.
6. Removal of **GST** from insurance premiums (2025) to make insurance more affordable.
7. **NIRAMAYA:** Special affordable health insurance scheme for persons with disabilities, covering OPD and diagnostics.
8. **Mental Health Coverage:** Expansion of benefits under Ayushman Bharat and private schemes to include mental health services.

Challenges related to health insurance in India:

1. **High Out-of-Pocket (OoP) Expenditure:** Even with the growth of insurance, over 60% of total healthcare spending is still paid out-of-pocket by patients. This is due to the lack of coverage for Out-Patient Department (OPD) expenses which constitute the bulk of everyday medical costs. Most insurance only covers hospitalization.
2. **The “Missing Middle”:** A vast segment of the Indian population is too wealthy to qualify for the highly subsidized PMJAY but too poor or informally employed to afford comprehensive private insurance. This group, estimated at around 30% of the population, often faces the greatest financial distress during a medical crisis.
3. **Complex Exclusionary Clauses:** Private insurance policies are often highly complex, containing numerous and difficult-to-understand clauses, especially concerning Pre-Existing Diseases (PEDs). PEDs typically involve waiting periods of 2 to 4 years, meaning individuals with chronic conditions (like diabetes or hypertension) cannot access coverage immediately, defeating the purpose of buying insurance when they need it most.
4. **Claim Denial and Disputes:** High rates of claim rejection or partial payment, particularly in the private sector, erode public trust. This often stems from ambiguity in policy wording, non-disclosure

of health conditions by customers, or arbitrary interpretation of “medically necessary” treatment by insurers.

5. **Privatisation of Healthcare & Profit-seeking Behaviour:** Health insurance in India promotes for-profit medicine. About two-thirds of the PM-JAY budget is spent on private, mainly profit oriented hospitals. India’s healthcare system, however, is dominated by poorly-regulated profit seekers. Health insurance reinforces this bias rather than correcting it.
6. **Misdirected Focus:** Health insurance also tilts the focus of the healthcare system towards hospitalisation, when investments in primary & outpatient care may be more urgent. Focus on strengthening the PHC would not only ensure accessible treatment but also reduce unnecessary hospital visits & their financial burden.
7. **Lack of Awareness & Serious Utilisation Problem:** The combined coverage of PM-JAY & SHIP is estimated to be as high as 80% of the population. However, a large % of this population do not seem to know about these schemes or how to use them even if they are nominally enrolled. According to the 2022-23 Health Consumption Expenditure Survey – only 35% of insured hospital patients in that year were able to use their insurance. This is the main reason why there is no strong evidence linking the health insurance schemes with substantial reduction in OoP health expenditure.
8. **Discriminatory Treatment:** Targeted health insurance schemes create the issue of discrimination between insured & uninsured patients. Private hospitals prefer an uninsured patient because commercial charges for healthcare are usually higher for them – often much higher than the insurance reimbursement rates. Public hospitals, on the other hand, prefer insured patients because they get some money for their treatment. This creates the problem of discriminatory treatment & pressure to enroll for insurance on spot.
9. **Information Asymmetry and Fraud:** Both government and private schemes struggle with fraud and unethical practices. This includes excessive billing or unnecessary procedures by healthcare providers to maximize claim amounts, which, in turn, increases the overall cost of insurance for everyone. The NHA has recently recommended action against 3200 hospitals for fraudulent activities under PM-JAY.
10. **Regulatory Capacity:** While the Insurance Regulatory and Development Authority of India (IRDAI) is active, ensuring compliance across thousands of hospitals and hundreds of insurance products requires enormous regulatory bandwidth, especially in monitoring billing practices and claim settlement integrity.

Way forward:

1. Universal Health Coverage:

- Expand government schemes like Ayushman Bharat to cover the uninsured population (~400 million), especially focusing on outpatient care and chronic illnesses.
- Bridge the “Missing Middle” Gap: Encourage insurers to offer highly flexible, modular plans that allow the “missing middle” to buy specific coverage at a lower cost, with the option to add comprehensive coverage later.
- Increase public investment in primary and preventive healthcare, integrating insurance with wellness and early intervention programs.

2. Affordability & Product Innovation:

- Standardize insurance policies with transparent coverage and limits (e.g. Arogya Sanjeevani) to eliminate confusion and mis-selling.
- Develop plans tailored for seniors, women, and low-income groups, including wellness-linked benefits and cashless OPD coverage.

3. Mandatory Health Claims Exchange (HCX) Use:

The government must mandate the use of the HCX platform by all hospitals and insurers (public and private). This standardized digital exchange will

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drastically reduce claim processing time, minimize disputes, and reduce fraudulent billing by creating an audit trail.

4. Strengthened Regulatory Framework:

- IRDAI reforms to speed claim settlements, mandate cashless anywhere facilities, protect consumer rights, and regulate premium hikes.
- Introduce composite licenses allowing insurers to offer life and health insurance products seamlessly.

5. Increased Awareness & Literacy:

- Run public campaigns focused on the importance of insurance, especially in rural/underserved regions.
- Promote financial literacy, especially around claim processes, policy selection, and benefits.

6. Paperless and Aadhaar-Linked Claims: The goal should be for 100% cashless and paperless claim settlement for all enrolled patients, using the ABHA (Ayushman Bharat Health Account) ID for authentication and record access.

Conclusion:

Social health insurance is definitely an important pillar towards achieving UHC, however, to truly achieve the UHC, the focus should be on not only overcoming the limitations of the existing health insurance programmes but also on investing in basic public healthcare infrastructure.

UPSC GS-2: Social Security

Read More: [The Hindu](#)

Neighborhood First Policy – Significance & Challenges – Explained Pointwise

India's "Neighbourhood First Policy" is a central pillar of its foreign policy, aimed at strengthening ties and advancing peace, connectivity, and prosperity in South Asia and the Indian Ocean Region. The NFP accords primacy to nations in periphery with focus on encouraging trade, connectivity and people-to-people contact.

Introduction:

- Formally conceptualized in 2008 and prioritized since 2014, the policy aims to enhance India's diplomatic, economic, and strategic relations with its immediate neighbours: Afghanistan, Bangladesh, Bhutan, Maldives, Myanmar, Nepal, Pakistan, and Sri Lanka.
- **Principles:** Guided by the "5S" framework— **Samman** (Respect), **Samvad** (Dialogue), **Shanti** (Peace), **Samriddhi** (Prosperity), **Sanskriti** (Culture).

Salient features of India's Neighbourhood First' policy:

1. **Immediate priority to neighbours:** Priority is to improve the relations with immediate neighbours as peace and tranquility in South Asia is essential for realizing development agenda. The neighbourhood first policy actively focuses on improving ties with India's immediate neighbours.
2. **Dialogue:** It focuses on vigorous regional diplomacy by engaging with neighbouring nations and building political connectivity through dialogue. First initiative in this direction was extending an invitation to all heads of government of SAARC countries for the oath taking ceremony of the Prime Minister in 2014.

3. **Resolving bilateral issues:** Focus is on resolving bilateral issues through mutual agreement. For instance, India and Bangladesh have signed a pact to operationalise the historic Land Boundary Agreement (LBA).
4. **Connectivity & Integration:** The primary goal is to physically and digitally integrate South Asia, making India the central hub for trade, transit, and people-to-people exchange:
 - **Physical Connectivity:** Focus on rapid development of infrastructure projects like roads, railways, and ports to facilitate trade. Key projects include the Kaladan Multimodal Transit Transport Project (connecting India to Myanmar) and railway links to Nepal and Bangladesh.
 - **Digital Connectivity:** Extending internet and communication services, such as setting up communication lines or offering digital expertise, to partner nations.
 - **Energy Connectivity:** Establishing regional power grids to allow countries to trade electricity, benefiting nations like Nepal, Bhutan, and Bangladesh.
5. **Economic Cooperation:** It focuses on enhancing trade ties with neighbours. India has participated and invested in SAARC as a vehicle for development in the region. One such example is the Bangladesh-Bhutan-India-Nepal (BBIN) grouping for energy development i.e. motor vehicles, waterpower management and inter-grid connectivity.
6. **Technical Cooperation:** The policy put emphasis on technical cooperation. For e.g. a dedicated SAARC satellite was developed to share the fruits of the technology like tele-medicine, e-learning etc. with the people across South Asia.
7. **Disaster management:** India positions itself as the first responder during regional crises (e.g., the 2015 Nepal earthquake, humanitarian aid during the Sri Lanka economic crisis). This enhances goodwill and trust.
8. **Military and defence cooperation:** India is also focusing on deepening security in the region through military cooperation. Various exercises like Surya Kiran with Nepal, Sampriti with Bangladesh aim to strengthen defence relations.

Significance of NFP:

1. **Security & Strategic Significance:**
 - The policy ensures stable borders and regional peace by proactively engaging with Bangladesh, Nepal, Bhutan, Myanmar, Sri Lanka, Maldives, Afghanistan, and Pakistan.
 - It is critical for combating transnational threats like terrorism, smuggling, cybercrime, and illegal migration by establishing frameworks for security cooperation and intelligence sharing.
 - India's engagement acts as a counterbalance to external powers—most notably China—in the region, reinforcing India's leadership and influence in South Asia and the Indian Ocean.
2. **Economic Development & Integration:**
 - It promotes cross-border trade, energy cooperation, and infrastructure development—vital for economic growth and regional integration.
 - Initiatives like the BBIN Motor Vehicle Agreement, transnational electricity grids, and trilateral highways accelerate development and link India's Northeast with neighbours.
 - India's development aid and capacity-building projects foster economic stability and human development in neighbouring countries.
3. **People-to-People Ties (Soft Power):**
 - Enhances people-to-people links, cultural exchanges, medical aid, scholarships, and disaster response across the region, building goodwill and mutual trust.

- Fosters regional solidarity and helps resolve disputes through dialogue and diplomacy rather than confrontation.
- 4. **Managing Migration and Refugees:** A stable and economically prosperous neighbourhood reduces the risk of large-scale, unplanned refugee influxes or illegal migration, allowing India to better manage its resources and demographics.
- 5. **Establishing India as a Net Security provider:** As a regional power, India must be seen as the primary net security provider in the Indian Ocean Region (IOR). By actively assisting nations like Sri Lanka and Maldives with maritime security, disaster relief, and economic stability, the NFP reinforces India's natural position as the first port of call during a crisis.
- 6. **Improves India's Global Standing:**
 - It positions India as a responsible regional power committed to peaceful coexistence, prosperity, and cooperation.
 - Underpins India's ambitions for global leadership and a constructive role in forums like SAARC, BIMSTEC, and the Indian Ocean Rim Association.

Challenges with NFP:

1. **The Pakistan Factor:** The persistent hostility and border tensions with Pakistan consume a disproportionate amount of India's security and diplomatic bandwidth, often diverting focus and resources away from developmental aspects of the NFP with other, more cooperative neighbours.
2. **The China Factor:** The most significant challenge is China's expanding economic and strategic footprint in South Asia (via the Belt and Road Initiative – BRI), which offers neighbours large-scale, easy-term loans, potentially drawing them away from India's orbit.
3. **Internal Instability:** Political instability or internal crises in countries like Nepal, Bangladesh, Sri Lanka can complicate or halt Indian-funded projects.
4. **Asymmetric Power Balance:** India's immense size, economic, and military power can evoke a sense of unease or "Big Brother" syndrome in smaller neighbours like Nepal, Maldives, and Sri Lanka. They often strategically balance their ties with India against China to assert their sovereignty and gain better leverage, slowing down cooperation with New Delhi.
5. **Security Concerns:** Complex security dynamics, especially with Pakistan, and issues related to cross-border terrorism, refugees, and border disputes often overshadow developmental cooperation efforts.
6. **Border Disputes and Water Issues:** Unresolved border issues (e.g., with Nepal, Pakistan) and critical disputes over the sharing of trans-boundary rivers (e.g., with Bangladesh and Nepal) create inherent friction that makes high-level cooperation difficult to sustain.
7. **Slow Bureaucracy and Delays:** Indian-funded projects often face significant delays due to bureaucratic procedures, environmental clearances, internal political changes in India, and slow release of funds. This lack of timely execution can lead to frustration in the partner country and create a negative image of India's capabilities.

Various initiatives under NFP:

1. **BBIN Motor Vehicles Agreement (MVA):** India, Bhutan, Bangladesh, and Nepal are working on this framework to allow seamless movement of passenger and cargo vehicles across borders. This is vital for lowering trade costs and increasing efficiency.
2. **Coastal Shipping Agreements (Bangladesh):** India utilizes ports in Bangladesh (like Chittagong and Mongla) to move goods to its landlocked North-Eastern states, shortening transit times significantly.

3. **Agartala-Akhaura Rail Link (Bangladesh):** This project, once fully operational, will connect India's North-East to Bangladesh's railway network, dramatically reducing travel time from Kolkata to Agartala.
4. **Cross-Border Petroleum Pipelines (Nepal/Bangladesh):** Initiatives like the Motihari-Amlekhgunj oil pipeline to Nepal ensure reliable and efficient supply of petroleum products, removing logistical bottlenecks.
5. **SAGAR (Security and Growth for All in the Region):** While broader, SAGAR is the maritime dimension of the NFP. It involves defence cooperation, disaster relief & humanitarian aid.
6. **Lines of Credit (LoC):** India extends concessional LoCs to finance infrastructure and development projects tailored to the needs of the neighbour. For example, LoCs have financed railway upgrades in Bangladesh and housing reconstruction in Sri Lanka.

Way forward:

1. **Dedicated Implementation Cell:** Create a specialized, fast-tracked "Neighbourhood Projects Cell" within the Ministry of External Affairs (MEA) that focuses solely on the execution of NFP projects. This cell should be empowered to bypass bureaucratic hurdles, ensuring that all necessary clearances are obtained within strict deadlines.
2. **Digital Connectivity Hub:** Proactively offer India's digital public infrastructure (like Aadhaar, UPI, and Digital Health Stack) to interested neighbours (like Sri Lanka, Nepal, and Bhutan) on an open-source, non-proprietary basis. This fosters seamless integration and builds dependency on India's technology, not just its capital.
3. **Focus on Soft Power and Culture:** Increase the number of scholarships, fellowships, and cultural exchange programs. Sponsor regional cultural festivals and joint historical research projects. This addresses the "hearts and minds" element, portraying India as a benign, culturally accessible power, contrasting with the often transactional nature of other partnerships.
4. **Hybrid Financing Models:** Move beyond traditional grants and pure Lines of Credit (LoC). Utilize Public-Private Partnerships (PPPs) and equity investments in neighbouring countries, allowing Indian private firms to invest directly in large-scale infrastructure alongside the host nation's government.
5. **Debt Management Assistance:** Instead of directly competing on every loan, India should offer expertise and financial support to neighbours to help them manage and restructure existing unsustainable debts (often from China), positioning India as a responsible and reliable economic counselor.

Conclusion: India's Neighbourhood First Policy is fundamental for its security, development, and international standing, demanding continued diplomatic engagement and trust-building with regional partners.

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India-Bhutan Relationship – Significance & Challenges – Explained Pointwise

India-Bhutan relations are marked by exemplary friendship, trust, and multi-sectoral cooperation, but also face complexities arising from strategic, economic, and geopolitical challenges.

Introduction:

- Relationship with Bhutan is cornerstone of India's Neighbourhood First Policy.

- The relationship is characterized by deep trust, shared security interests, and extensive developmental cooperation. It is often described as a special relationship that has withstood geopolitical challenges.
- The relationship is built on a legacy of mutual respect and is underpinned by key treaties:
 - **Treaty of Peace and Friendship (1949):** This was the original foundation, establishing close ties.
 - **Revised Treaty of Peace and Friendship (2007):** The treaty was revised to reflect Bhutan's sovereignty and transition to a constitutional monarchy. While preserving the spirit of close cooperation, the revised treaty grants Bhutan full authority over its foreign policy, while New Delhi remains committed to assisting Bhutan's security and development.

Significance of India-Bhutan Bilateral Relations:

For India	<ol style="list-style-type: none"> 1. Buffer Against China: Bhutan's location as a buffer state between India and China is critical for Indian national security, especially in the sensitive Chumbi Valley and Doklam region, which are close to India's Siliguri Corridor. Thus, Bhutan is important for India to secure its 'Chicken's neck' corridor. 2. Regional Diplomacy: Bhutan aligns with India on global and regional platforms like SAARC, BIMSTEC, and BBIN, reinforcing India's leadership and countering external influences. 3. Countering Internal Threats: Cooperation with Bhutan is vital for border management and checking the movement of insurgents and extremist groups operating in India's North-Eastern states.
For Bhutan	<ol style="list-style-type: none"> 1. Trade and Investment: India is Bhutan's largest trading partner, accounting for over 75% of its imports and nearly 60% of its exports. Duty-free trading and free movement of goods bolster Bhutan's economic stability. 2. Hydropower Cooperation: Indian investment in Bhutan's hydel projects (Tala, Chukha, Kuricchu, Mangdechhu) provides Bhutan with a steady and sustainable revenue stream. The revenue generated from selling hydropower to India often accounts for over 25% of Bhutan's national revenue, making it the single largest source of foreign exchange. 3. Development Aid: India is the largest provider of development assistance to Bhutan, contributing thousands of crores for Five Year Plans, education, health, infrastructure, and High Impact Community Development Projects. 4. Indian Diaspora: About 50,000 Indians are presently working in Bhutan in the sectors such as infrastructure development, hydropower, education, trade and commerce signifying close people to people ties between the two countries.

Challenges in India-Bhutan Bilateral Relations:

1. **Bhutan-China Border Talks:** Bhutan is actively engaged in border negotiations with China, particularly concerning the disputed areas in the north and the crucial Doklam Plateau in the west. Any settlement reached between Bhutan and China has profound implications for India, especially for the security of its Siliguri Corridor (the "Chicken's Neck").

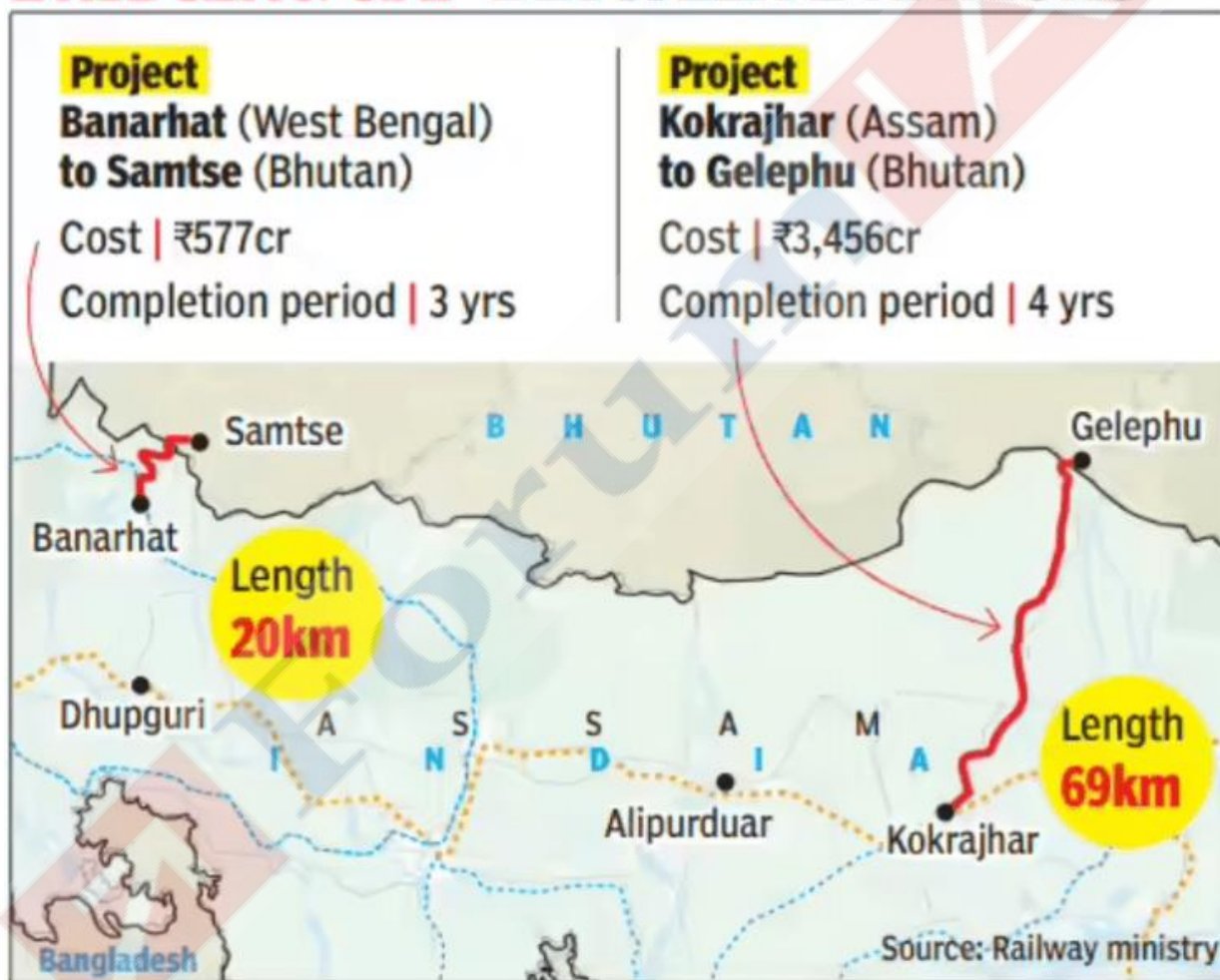
2. **Hydropower Concerns:** While hydropower is a cornerstone of bilateral cooperation, Bhutanese critics sometimes see project terms as too favorable to India, leading to public dissent and questions around equity and sustainability. Delays and cost overruns in hydropower projects contribute to discontent in Bhutan.
3. **Trade Diversification & Economic Diversification:**
 - Bhutan faces a persistent trade deficit, importing much more from India than it exports, despite preferential trade agreements.
 - Bhutan is keen to diversify its economy into non-hydro sectors like high-end tourism, IT, and sustainable industries.
 - Despite the free trade agreement, Bhutanese businesses sometimes face non-tariff barriers or bureaucratic hurdles when trying to access the Indian market.
4. **Connectivity & Infrastructure Gaps:**
 - Road, rail, and transport links between India and Bhutan remain limited, hampering further economic and strategic integration.
 - Bhutan's reservations about joining the BBIN Motor Vehicles Agreement due to sustainability and environmental concerns have slowed regional connectivity initiatives.
5. **The "Big Brother" Syndrome:** Due to India's overwhelming size and historical role as protector, there is a persistent public sentiment (though small) in Bhutan that views India as overly dominant or a "Big Brother."
6. **Environmental & Social Sensitivities:** Bhutan's focus on Gross National Happiness and environmental preservation sometimes clashes with India's infrastructure-led approach (e.g., highways, hydropower, BBIN MVA). There are concerns about the potential social impacts of rapid integration, such as migration and cultural change.
7. **Border Management & Security:** While the 699 km India-Bhutan border is largely peaceful, incidents of illegal crossings, militant hideouts, and smuggling necessitate close security cooperation.

Various areas of Cooperation between India & Bhutan:

1. **Hydropower Cooperation (Economic Engine):** This is the single most important economic aspect of the relationship and a key driver of Bhutan's national revenue.
 - **"Win-Win" Model:** India funds, constructs, and operates major hydroelectric projects in Bhutan. India then purchases the surplus electricity at preferential rates. This arrangement provides Bhutan with massive revenue (accounting for over 25% of its GDP) and provides India with clean, renewable energy.
 - **Projects:** Key projects include Chukha, Tala, Kurichhu, and the large Punatsangchhu Hydroelectric Projects (I and II), which are the result of deep technical and financial collaboration.
2. **Trade & Economic Cooperation:**
 - **Duty-Free Access:** Bhutan enjoys free trade access to the Indian market for most of its exports.
 - **Development Assistance:** India is Bhutan's largest development partner. The Government of India provides significant financial grants and support for Bhutan's Five-Year Plans, funding critical sectors like education, health, and infrastructure development.
 - **Currency Stability:** The Indian Rupee (INR) is fully convertible with the Bhutanese Ngultrum (BTN), and India extends currency swap arrangements to Bhutan, ensuring financial stability during economic fluctuations.
3. **Security & Strategic Cooperation:**

- **Border Security:** India is responsible for training the Royal Bhutan Army (RBA). The RBA and Indian forces cooperate closely on border management.
 - **Doklam Standoff (2017):** When the Chinese military attempted to build a road on the disputed Doklam plateau (claimed by Bhutan), Indian forces intervened based on the strategic implications for India's own security (Siliguri Corridor or 'Chicken's Neck'). India's intervention demonstrated its commitment to Bhutan's territorial integrity.
4. **Connectivity & Infrastructure:** India funds and constructs cross-border roads, border infrastructure (BRO Project DANTAK), bridges, and new cross-border railway lines (Gelephu/Kokrajhar, Samtse/Banarhat).

BRIDGING GAP BETWEEN 2 NATIONS



Source: Times of India

5. **Environmental & Climate Cooperation:** Joint conservation projects, such as the Transboundary Manas Conservation Area (TraMCA), and collaboration to keep Bhutan carbon-negative and promote eco-tourism.
6. **Health Cooperation:** Medical aid, initiatives like Indira Gandhi Memorial Hospital, COVID-19 assistance, and support with vaccines/essential medicines highlight the health partnership.

Way Forward:

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1. Make Economic Partnership More Equitable & Diversified:

- Ensure hydropower and trade agreements address Bhutan's concerns on dependency, revenue sharing, and sector diversification (tourism, digital economy, agriculture).
- Foster Indian investments into Bhutan's non-hydro sectors—IT, services, manufacturing, health, education—to create jobs and build resilience.
- Offer Bhutan full access to India's Digital Public Infrastructure (DPI), such as the UPI payment mechanism, to modernize their financial sector.

2. Upgrade Connectivity & Infrastructure:

- Accelerate new cross-border railway links (e.g., Gelephu-Kokrajhar, Samtse-Banarhat), border checkposts, and digital integration for seamless trade and transit.
- Enhance road, air, and digital connectivity for North-East India, Bhutan, and regional integration.

3. Strengthen Security & Strategic Coordination:

- Maintain regular security dialogues and border consultations to monitor regional threats, especially China's moves near the Doklam plateau.
- Intensify cooperation in border management, anti-terrorism, intelligence sharing, and disaster response.

4. Promote Sustainable Development & Environmental Harmony: Joint efforts on green energy (hydro, solar, hydrogen), eco-tourism, disaster resilience, and climate adaptation in line with Bhutan's Gross National Happiness approach.

Conclusion: India-Bhutan relations are a model for good-neighbourly partnerships built on mutual respect, trust, and extensive cross-sectoral cooperation. Continued strategic sensitivity, transparency, and mutual benefit are key to sustaining and strengthening the relationship in the face of evolving regional dynamics.

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India-Afghanistan Relationship – Significance & Challenges – Explained Pointwise

The recent visit of the Afghan Taliban government's Foreign Minister in India has been described as unprecedented & groundbreaking by several geopolitics experts. It is the Taliban's highest-level visit to India since seizing power in 2021. In this regard, let us understand the significance & challenges in the India-Afghanistan relationship.

Introduction:

- India-Afghanistan relations have been shaped by geography, history, and strategic interests. Afghanistan has historically served as a bridge between South Asia and Central Asia, fostering trade, cultural exchanges, and political alliances. However, its geopolitical significance has also made it a hotspot for great power rivalries.
- In recent years, India has emerged as a key partner in Afghanistan's development and stabilization efforts. The return of the Taliban in 2021 marked a significant turning point, prompting India to recalibrate its policy to safeguard its strategic interests and historical ties.
- Since Taliban's takeover in 2021, India has maintained a limited diplomatic presence while focusing primarily on humanitarian and people-to-people assistance.

What is the historical background of Indo-Afghan Relations?

Ancient Links and Cultural Exchange	<ol style="list-style-type: none"> Indus Valley Civilization: Indo-Afghan relations trace back to the Indus Valley Civilization, with trade and cultural exchanges flourishing between the two regions. Silk Road Connection: Afghanistan's position on the Silk Road facilitated trade and cultural exchanges between India and Central Asia. Shared Heritage: The Gandhara civilization, based in modern-day Afghanistan, influenced Indian art and culture, notably in Buddhist sculptures like the Bamiyan Buddhas. Religious and Epic References: Ancient Indian texts like the Mahabharata and Rigveda mention Afghanistan, underscoring longstanding ties. Emperor Ashoka's efforts to spread Buddhism to Afghanistan further highlight historical connections.
Medieval Period and Islamic Empires	<ol style="list-style-type: none"> Durrani Empire: Under Ahmad Shah Durrani in the mid-18th century, Afghanistan became a regional power influencing Indo-Afghan ties. Mughal Empire: Afghan rulers like Babur, the founder of the Mughal Empire, shaped Indian history, bringing Indo-Persian art, architecture, and literature into India.
British Period (19th-20th Century)	<ol style="list-style-type: none"> Anglo-Afghan Wars: British India's attempts to control Afghanistan as a buffer state against Russia strained regional dynamics. Partition of India: Post-1947, Afghanistan refused to recognize Pakistan's creation, supporting Pashtun autonomy and influencing Indo-Afghan relations.
Post-Independence and Cold War Period	<ol style="list-style-type: none"> 1947-1979: India maintained friendly ties with Afghanistan, formalized by the Indo-Afghan Friendship Treaty (1950). Soviet Invasion (1979-1989): India supported Soviet-backed Afghan governments, while Pakistan and the U.S. aided Mujahideen forces. Kandahar Hijacking Incident (1999): The hijacking of Indian Airlines Flight 814 highlighted security concerns with the Taliban regime.
Post-Taliban Era (2001-Present)	<ol style="list-style-type: none"> Strategic Partnership: India invested heavily in Afghanistan's reconstruction, funding infrastructure projects like the Zaranj-Delaram Highway and Afghan Parliament Building. Challenges Post-2021: The Taliban's return has strained relations, forcing India to evacuate its embassy and recalibrate its approach. New Beginning: India has reopened its embassy in Kabul and established direct contact with the Taliban government, while pursuing

	an “engagement without recognition” policy due to ongoing concerns about governance and rights.
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Significance of India-Afghanistan Relationship:

For India:

Geostrategic Significance	<ol style="list-style-type: none"> Gateway to Central Asia: Afghanistan serves as a vital link for India's access to energy-rich Central Asia, bypassing Pakistan. Countering Pakistan's Influence: A stable Afghanistan reduces Pakistan's strategic depth, supporting India's geopolitical interests. Chabahar Port Connectivity: India's investment in Iran's Chabahar Port facilitates trade with Afghanistan, circumventing Pakistan.
Regional Security	<ol style="list-style-type: none"> Terrorism Concerns: Afghanistan's stability directly impacts India's security, especially concerning cross-border terrorism and groups like the Haqqani network. Taliban-Pakistan Nexus: A Taliban-dominated Afghanistan raises fears of increased Pakistani influence and destabilization in Kashmir.
Economic Significance	<ol style="list-style-type: none"> Trade and Transit: India-Afghanistan air freight corridors and the Chabahar Port boost bilateral trade. Natural Resources: Afghanistan's rich reserves of minerals like lithium, copper, and rare earths present opportunities for India.

For Afghanistan:

- Major Development Partner:** India has invested over \$3 billion in 500+ infrastructure and community projects, including dams, roads, hospitals, and schools, offering education, health, and livelihood benefits to Afghans.

2. **Humanitarian Assistance:** India provides regular emergency aid—food, medicines, disaster relief—and is respected for help during crises, including earthquakes and pandemic response.
3. **Trade Potential:** India is a major export destination for Afghanistan, and supports trade links through air corridors and Chabahar Port.
4. **Scholarships:** Thousands of Afghan students pursue higher education in India with scholarship support, strengthening people-to-people links.

What are the areas of engagement between India - Afghanistan?

Developmental Assistance

1. Infrastructure Projects:

- **Zaranj-Delaram Highway:** Connects Afghanistan to the Iranian border.
- **Salma Dam (Afghan-India Friendship Dam):** A major hydroelectric and irrigation project in Herat province.
- **Afghan Parliament Building:** A major symbol of democratic friendship, built and gifted by India in Kabul.

2. Healthcare and Education: India has built hospitals and provided scholarships for Afghan students.

3. Capacity Building: India provided training to thousands of Afghan students, civil servants, and military officers, helping to build the country's institutional capacity.



Trade and Economic Relations	<ol style="list-style-type: none"> 1. Air Freight Corridor: Facilitates direct trade bypassing Pakistan. 2. Chabahar Port: Enhances Afghanistan's connectivity to global markets.
Regional Security and Counter-terrorism	<ol style="list-style-type: none"> 1. Capacity Building: India trains Afghan security forces to counter terrorism. 2. Taliban Dynamics: India cautiously engages with the Taliban, focusing on its security concerns.
Humanitarian Assistance	<ol style="list-style-type: none"> 1. Crisis Support: India has provided food grains and COVID-19 vaccines to Afghanistan. 2. Community Projects: Over 200 programs, including schools and water supply systems, have been implemented.

Challenges in India-Afghanistan Relations:

1. **Political Instability in Afghanistan:**
 - **Taliban Takeover (2021):** The lack of an inclusive government complicates bilateral ties.
 - **Uncertain Governance:** India's projects face risks under the Taliban regime.
2. **Security and Pakistan Factor:**
 - **Strategic Depth Doctrine:** Pakistan's influence over the Taliban undermines India's interests.
 - **Cross-Border Terrorism:** Taliban-Pakistan ties threaten Kashmir's stability.
3. **Geographic Connectivity Barrier:**
 - **Geographic Disconnect:** India lacks direct land access to Afghanistan.
 - **Limited Air Corridors:** Air freight corridors are not a comprehensive solution.
4. **Drug trafficking:** Afghanistan is the world's largest producer of opium, and the drug trade has contributed to instability and violence in the region, affecting both India and Afghanistan.

What should be the way forward in India-Afghan Relationship?

1. **Sustain Diplomatic Engagement while Withholding Formal Recognition:**
 - Maintain a functional full embassy, regular high-level exchanges, and technical partnerships, without immediate formal recognition of the Taliban.
 - Uphold conditional engagement, demanding assurances against the use of Afghan territory for terrorism targeting India, and keeping dialogue channels open for real-time intelligence sharing and security cooperation.
2. **Expand Targeted Development and Humanitarian Diplomacy:**
 - Continue needs-based development projects (healthcare, water, rural infrastructure, education), responding to urgent Afghan requirements and building grassroots goodwill.
 - Invest in humanitarian aid (food, medicine, earthquake support) and publicly visible projects to counter Chinese and Pakistani influence, reinforce soft power, and stabilize communities.
3. **Strengthen Counter-terrorism Cooperation:**

- Institutionalize intelligence exchange, joint investigations, and security sector capacity-building based on India's 2011 Strategic Partnership Agreement with Afghanistan.
 - Intensify cross-border anti-narcotics collaboration and border management to tackle trafficking and radicalization risks.
4. **Secure Economic Connectivity & Cooperation:**
- Expand alternative trade and transit corridors, notably via Chabahar Port, revitalize the Air Freight Corridor, and develop resource-sector partnerships with robust contractual safeguards.
 - Explore investments in minerals, water resource management, and sectoral modernization to create mutual incentives for regional stability.
5. **Balance Principles & Realpolitik:**
- Engage with the regime on the basis of practical security and development needs, without losing sight of India's advocacy for inclusive governance, minority protection, and women's rights.
 - Use multilateral forums to pressure for more inclusive policies and broader international engagement.

Conclusion: A patient, pragmatic, and principled approach—with robust humanitarian aid, targeted development diplomacy, and strategic cooperation—will safeguard Indian interests and support Afghanistan's peace, progress, and stability in a volatile region.

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India-Myanmar Relations – Significance & Challenges – Explained Pointwise

The India-Myanmar relationship is one of India's most strategically important but geopolitically complex partnerships. The relationship is currently dominated by India's competing needs for **border security** and its commitment to the **Act East Policy**, all while navigating the unstable political environment created by the 2021 military coup.



Map of major regions in Myanmar and India's northeastern states.

Historical Background:

India and Myanmar have a long history of cultural, religious, and trade links that date back to ancient times. As the land of Lord Buddha, India is a country of pilgrimage for the people of Myanmar.

British Era	Both India and Myanmar were part of British India during colonial rule until 1935.
Post Independence	After independence, India and Myanmar established diplomatic relations and maintained close ties. India and Myanmar signed a Treaty of Friendship in 1951.
2002	The Indian Consulate in Mandalay was reopened, and the Consulate of Myanmar was set up in Kolkata.

2014	Myanmar became part of India's "Neighbourhood First" policy and its "Act East" policy.
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Significance of Myanmar for India:

1. **Geo-strategic:** Myanmar is India's gateway to South-East Asia and development of North-Eastern India. Myanmar is an important pillar of India's "Neighborhood First" policy and "Act East" Policy. **For e.g.** Development of India-Myanmar-Thailand (IMT) trilateral highway, Kaladan Multi-Modal Transit Transport (KMMTT) corridor relies on Myanmar.
2. **Tackling insurgency in Northeast:** Insurgent groups such as ISCN-K, ISCN-IM have operational bases inside Myanmar. **For e.g.** Cooperation of Myanmar government in controlling Naga insurgency.
3. **Countering China:** Myanmar is crucial for India to counter its growing influence in the South-East Asian region. **For e.g.** India is developing the Sittwe port in Myanmar's Rakhine state to counter the Chinese-fronted Kyaukpyu port.
4. **Reduction of illegal migration in India:** A stable Myanmar is necessary to reduce the illegal Rohingya and Chin migration in India.
5. **Cultural ties:** Buddhism which is the majoritarian religion in Myanmar has its roots in India, which has led to huge cultural similarities between India and Myanmar.

Major Areas of Cooperation Between India and Myanmar:

1. **Trade and economy:** Bilateral trade between India-Myanmar has grown from \$12.4 million in 1980-81 to \$2.18 billion in 2016-17. Myanmar is the beneficiary of India's duty-free tariff preference scheme for least-developed countries (LDCs). Indian companies such as Essar, GAIL, and ONGC Videsh Ltd. have invested in Myanmar's energy sector.
2. **Infrastructure and Connectivity:** India-Myanmar relations has been bolstered by the key connectivity projects. India has invested deeply in the infrastructure projects in Myanmar:
 - India and Myanmar inaugurated the 250-kilometer **Tamu-Kalewa-Kalemyo highway**, popularly called the Indo-Myanmar Friendship Road, in 2001.
 - India is building the **Kaladan Multi-Modal Transit Transport** to link Kolkata to Sittwe in Myanmar and then from Myanmar's Kaladan river to India's North-East.



- India, Myanmar, and Thailand are building the **Asian Trilateral Highway**, which will connect India to ASEAN.



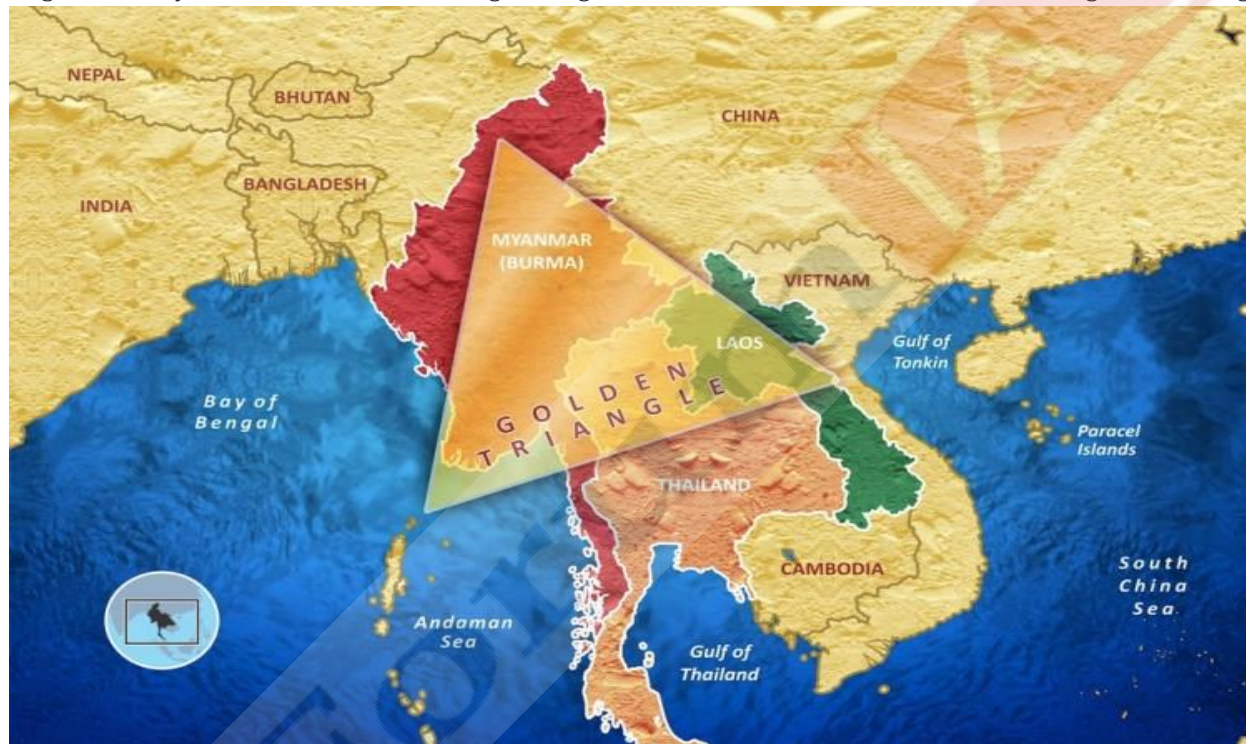
3. **Free Movement Regime (FMR):** The border is governed by an FMR, which allows people residing within 16 km on either side to cross without a visa. This facilitates local tribal links (especially the Kuki-Chin-Mizo communities) but is a major security challenge, especially during conflicts.
4. **Defence cooperation:**
 - India and Myanmar conduct a joint military exercise, called **India – Myanmar Bilateral Military Exercise (IMBEX)**.
 - **Operation Sunrise** between India-Myanmar armies jointly target the militant groups that operate in the border states.
5. **Multilateral partnership:** Myanmar is also a key component of India's strategy to bridge South and South-East Asia through ASEAN, BIMSTEC, and Mekong Ganga Cooperation (MGC).
6. **Education and research:** India has developed Myanmar Institute of Information and Technology and Advanced Center for Agricultural Research and Education (ACARE) for conducting research on pulses and oilseeds.
7. **Humanitarian Aid and Disaster Relief:** India has provided humanitarian aid and disaster relief in natural calamities in Myanmar like Cyclone Mora (2017), Komen (2015), earthquake in Shan State (2010) and COVID-19.

Challenges in India-Myanmar Relations:

1. **Political Unrest in Myanmar:**
 - **Military Coup in 2021:** Aung San Suu Kyi's National League for Democracy (NLD) landslide victory in the 2020 elections sparked concern among the military. The military (Tatmadaw) alleged electoral fraud and staged a coup in February 2021. Aung San Suu Kyi and other leaders were detained, sparking widespread protests and a violent military crackdown.
 - **Anti-Junta Armed Struggle:** Various Ethnic Armed Organizations (EAOs) and People's Defence Forces (PDFs) intensified their resistance against the military regime, resulting in escalating conflicts across the country.
2. **India's Policy Paradox with respect to Myanmar Coup:** India faces a dilemma in the form of its commitment to democracy vs. its internal security concerns. On one hand, India has been engaging with the military junta to control insurgent groups operating along the India Myanmar border. On the other hand, India also favours the establishment of federal democracy in Myanmar.

3. **Massive Influx of Refugees in India:** The ongoing armed struggle between the military Junta and the People's Defence forces in the Chin region, Sagaing region have led to massive influx of refugees in India, especially in Mizoram and Manipur. This influx of refugees in India has emerged as a major bone of contention between India and Myanmar, as these have been linked to violent ethnic clashes, drug trafficking and smuggling.
4. **Misuse of Free movement regime:** The Free Movement Regime between India and Myanmar is being exploited by militants and cross-border criminals for the illegal transportation of weapons, contraband goods, and counterfeit Indian currency.

Northeast insurgency and Drug Menace: Myanmar-China border is the hotbed of local armed separatist groups operating in Myanmar soil and Indian groups, ranging from ULFA in Assam to the NSCN (IM) in Nagaland. Myanmar's Golden Triangle region is a notorious hub for drug trafficking.



5. **China's Inroads in Myanmar:** China has been steadily increasing its influence in Myanmar, investing heavily in infrastructure projects and expanding its economic footprint. For e.g. The launch of the China-Myanmar Economic Corridor (CMEC).
6. **Delays in regional connectivity Projects:** The inordinate delays in the implementation of the connectivity projects like the Kaladan Multimodal Connectivity project have widened the trust deficit between India and Myanmar.

Way Forward:

1. **Support for democracy and human rights:** The United Nations Special Rapporteur has reported an increase in India's arms supply to the military since the coup. Arming the Tatmadaw (Myanmar Military) undermines India's position on restoring democracy. India should continue to advocate for the restoration of democracy and respect for human rights in Myanmar like the release of political prisoners and ending the military junta's crackdown on dissent.
2. **Engagement with all stakeholders:** India should use its influence to open channels of dialogue with and between the junta and the opposition, including armed ethnic groups.

3. **Use of Regional Organisations for enhanced cooperation:** India should collaborate closely with the ASEAN nations for a peace plan for Myanmar.
4. **Enhanced Economic Engagement:** India should continue to engage with Myanmar economically to promote sustainable development for the benefit of the people of Myanmar. The delayed connectivity projects like the Kaladan and Asian Trilateral Highways must be expedited at the earliest.
5. **Closer Security Cooperation:** India must closely collaborate with Myanmar in intelligence sharing and coordinated efforts to combat insurgencies and drug trafficking.
6. **Solidarity with the People of Myanmar:** Providing aid and service to those affected by the crisis will alleviate suffering and demonstrate India's solidarity with the people of Myanmar.

Conclusion: India-Myanmar relations remain vital for India's eastern strategy, Northeast integration, regional stability, and for managing China's expanding influence—necessitating patient engagement, rapid implementation of projects, and balanced diplomatic outreach.

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India-Israel Relations – Significance & Challenges – Explained Pointwise

India-Israel relations are characterized by a strong, multi-dimensional strategic partnership that prioritizes defense, security, technology, agriculture, and innovation while showing remarkable political alignment on key global and regional issues.



Source: ORF

Historical development:

<p>Distant and Hesitant (1948 – 1992)</p>	<ul style="list-style-type: none"> • Initial Recognition (1950): India formally recognized Israel in 1950 but, due to Cold War dynamics, the large Muslim population in India, and a commitment to the Non-Aligned Movement (NAM), it did not establish full diplomatic relations. Israel was only permitted to open a consulate in Mumbai. • Pro-Palestinian Stance: India's foreign policy strongly supported the Palestinian cause and the Arab world, opposing Israel in international forums like the UN. • Covert Cooperation: Despite the diplomatic freeze, contacts existed, especially after India's defeat in the 1962 Sino-Indian War. Israel reportedly provided limited, discreet military aid to India in the 1965 and 1971 wars against Pakistan, laying the groundwork for future defense ties.
<p>Full Normalization and the Defense Pivot (1992 – 2014)</p>	<ul style="list-style-type: none"> • The Breakthrough (1992): India established full diplomatic relations with Israel in 1992. The geopolitical landscape shifted with the collapse of the Soviet Union, end of the Cold War and India's economic liberalization. • Defense Imperative: The relationship quickly pivoted to defense and security. The Kargil War in 1999 proved to be a critical moment, as Israel provided India with crucial laser-guided missile kits and UAVs, often supplying spare parts and equipment faster than traditional Russian or Western suppliers.
<p>Deepening, De-Hyphenation, and Strategic Alignment (2014 – Present)</p>	<ul style="list-style-type: none"> • De-hyphenation Policy: India explicitly adopted a “de-hyphenation” policy, asserting that its relationship with Israel is independent of its historical relationship with the Palestinians. This allows India to maintain ties with both without the former constraining the latter. • Multilateral Groupings: The partnership has expanded into the emerging regional structure, I2U2 (India, Israel, US, UAE), focusing on joint investments in water, energy, transport, space, and food security.

Significance of India-Israel Bilateral Relations:

1. **Political Convergence:** Both countries support each other's positions on critical issues—India has backed Israel's right to self-defence, and Israel supports India's stance against cross-border terrorism. This convergence raises each nation's diplomatic profile and provides reliable allies in volatile regions.
2. **Defense and Security:**
 - Israel is one of India's top defense suppliers, providing advanced technologies in drones, air defense, missiles, and intelligence—enhancing India's military readiness and anti-terror capabilities.

- Joint R&D and co-production in areas like electronic warfare and missile defense directly strengthen India's self-reliance and modernization.
- 3. **Intelligence and Counterterrorism:** Robust intelligence-sharing and operational cooperation have helped India counter terrorism and address emerging hybrid threats, with both countries facing similar security challenges in their regions.
- 4. **Trade and Investment:**
 - Bilateral trade—now touching \$7–8 billion—spans agriculture, high-tech, defense, and pharmaceuticals.
 - The 2025 Bilateral Investment Treaty is expected to boost two-way FDI, fintech, and start-up collaborations, setting the stage for a future free trade pact.
- 5. **Agriculture and Water Management:** Israeli innovation in drip irrigation, water conservation, and precision agriculture has been scaled across India, improving Indian farmers' efficiency, raising rural incomes, and addressing chronic water scarcity.
- 6. **Innovation Ecosystem:** India benefits from Israeli expertise in start-up incubation, cyber security, AI, and "smart city" technologies, and the I4F fund fosters joint research and product development for global markets.

Challenges in India-Israel Bilateral Relations:

1. **The Palestine Issue:** While India has successfully employed a policy of "de-hyphenation" (treating ties with Israel and Palestine separately), India remains a traditional supporter of the Palestinian cause in multilateral forums like the UN. This diplomatic position is sometimes at odds with Israel's global interests.
2. **Energy and Diaspora:** India relies heavily on the Gulf Cooperation Council (GCC) for a substantial portion of its **crude oil and natural gas** supplies. Furthermore, over **9 million Indian expatriates** reside in the Gulf, contributing critical remittances to the Indian economy. Any perceived over-alignment with Israel risks jeopardizing these vital economic and energy lifelines.
3. **Iran & China Factors:** India's ties with Iran (for Chabahar port, regional strategy, energy) and Israel's very close relationship with China in high technology (Israel-China trade: \$22 billion+) produce diverging priorities, and India is concerned about technology transfers from Israel to China and Chinese FDI in Israel.
4. **Limited Technology Transfer:** India's priority under its "Aatmanirbhar Bharat" initiative is to acquire technology for domestic manufacturing. While Israel is generally more willing to share defense technology than other nations, it still places restrictions on the full transfer of proprietary or sensitive systems, especially those containing **US components** (which are subject to US export control laws).
5. **Non-Defense Trade Plateau:** Despite ambitious targets, non-defense trade has generally plateaued between \$6 billion and \$8 billion, highlighting challenges in market access and scaling commercial engagement beyond established sectors.
6. **Intellectual Property Rights (IPR):** Israel, a high-tech exporter, shares concerns with other Western nations regarding India's relatively lenient IPR regime, particularly concerning the protection of software and digital innovation.
7. **Public Opinion in India:** Despite the government's strong public embrace, a significant segment of the Indian public and political opposition maintains traditional sympathy for the Palestinian cause, requiring the ruling party to occasionally temper its rhetoric and maintain a semblance of balance on the issue.

Areas of cooperation between India & Israel:

1. **Defence & Security:**

- **Arms Trade:** Israel is consistently one of India's top three defense suppliers. India procures critical systems like radar, missile defense shields (e.g., the **Barak 8** system developed jointly), drones, and sophisticated surveillance equipment.
 - **Joint Research and Development (R&D):** The focus has shifted from a buyer-seller relationship to joint development and co-production, aligning with India's "Aatmanirbhar Bharat" initiative.
 - **Counter-Terrorism:** Extensive intelligence sharing and training cooperation, particularly relevant due to shared security threats.
2. **Water & Agriculture:**
 - **Drip Irrigation and Micro-Irrigation:** Israel has implemented the **Indo-Israel Agricultural Project (IIAP)**, establishing dozens of "Centres of Excellence" across various Indian states. These centres train Indian farmers on high-tech techniques, primarily focused on micro-irrigation, protected cultivation (greenhouses), and maximizing yield with minimal water use.
 - **Water Management and Recycling:** Cooperation in water treatment, desalination, and recycling technology to help India address its growing urban water scarcity.
 3. **Cybersecurity and R&D:** Deep cooperation in cybersecurity, and joint research and funding in high-tech areas through the **India-Israel Industrial R&D and Technological Innovation Fund (I4F)**.
 4. **I2U2 Grouping:** India and Israel are core members of the I2U2 initiative, along with the **US and UAE**. This group focuses on promoting joint investments in key sectors like food security, water, energy, and transportation infrastructure, demonstrating Israel's role in India's regional economic strategy.

Way Forward:

1. **Deepen Strategic and Defense Cooperation:**
 - Strengthen defense ties by accelerating joint R&D, co-production of advanced military technologies (drones, missile defense, cyber security), and institutionalizing regular high-level dialogues.
 - Expand intelligence and counter-terrorism cooperation, leveraging Israel's expertise and India's regional security needs.
2. **Expand Economic and Investment Collaboration:** Fully implement the 2025 Bilateral Investment Treaty to boost two-way FDI, remove barriers, and scaffold a future Free Trade Agreement to increase trade volumes beyond the current \$7–8 billion.
3. **Enhance Innovation and Technology Exchange:** Foster shared innovation in AI, biotech, cybersecurity, and smart infrastructure utilizing the India-Israel Industrial R&D and Innovation Fund (I4F).
4. **De-Hyphenation through Integration:** By channeling joint investments and projects through the I2U2 framework, India demonstrates that its partnership with Israel is **not exclusive** but is actively beneficial to the Arab world. This provides a diplomatic shield for India's ties to Israel.
5. **Knowledge Corridors:** Establish structured "Knowledge Corridors" linking major Indian R&D institutions (like the IITs and IISc) with top Israeli universities and research centers to ensure a steady flow of research talent and joint discovery.

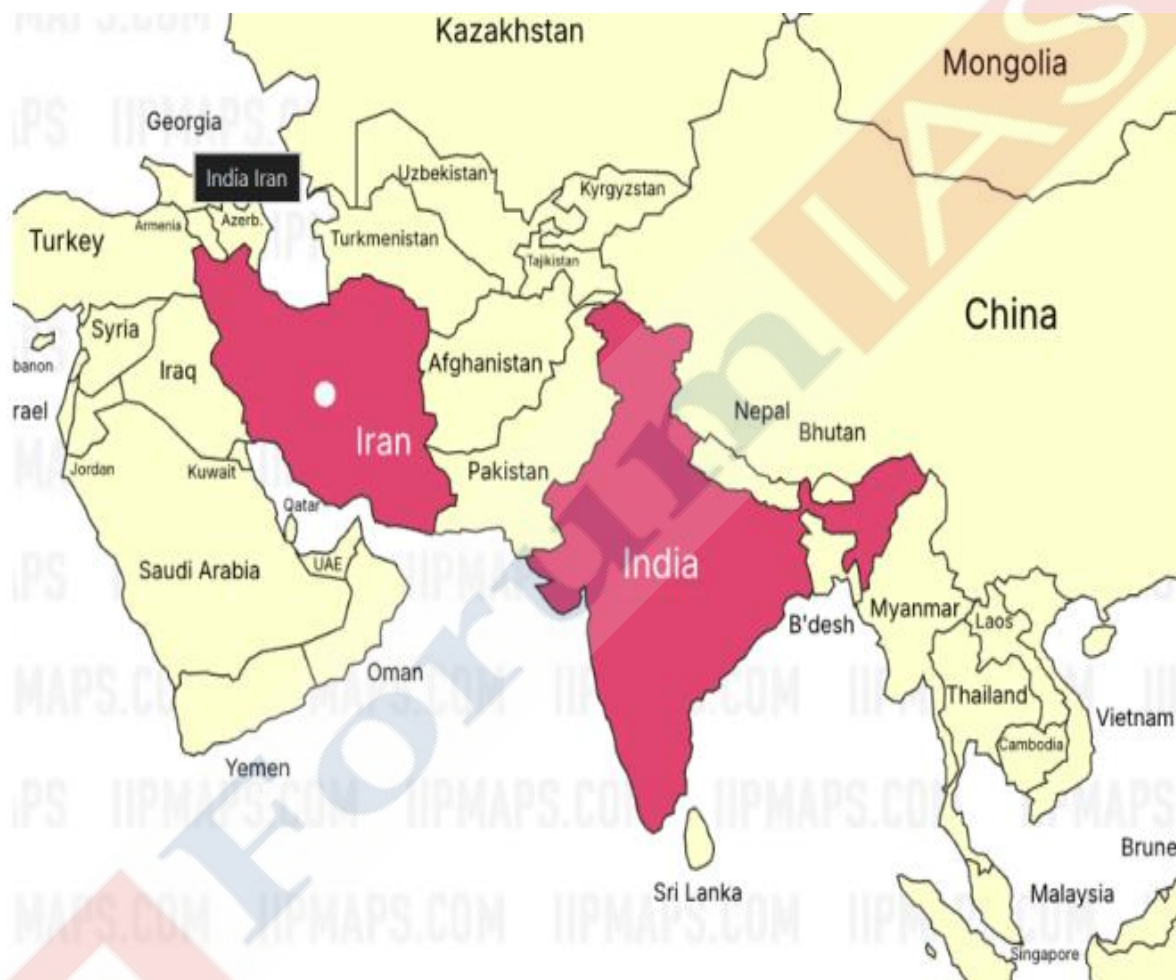
Conclusion: A pragmatic, multi-sectoral, and balanced approach respecting geopolitical sensitivities and focusing on enhanced cooperation will cement India-Israel relations as a cornerstone of India's strategic and innovation-driven growth trajectory.

UPSC GS-2: International Relations

Read More: [Embassy of India](#)

India-Iran Relations – Significance & Challenges – Explained Pointwise

The India-Iran bilateral relationship is a deeply **historical, civilizational, and strategically complex** partnership. It is characterized by India's enduring need for **energy security and regional connectivity** balanced against the immense pressure of **US sanctions** and the need to maintain strong ties with Israel and the Gulf states.



Source: Politics for India

Historical development of India-Iran Relations:

<p>Ancient & Medieval Period</p>	<ul style="list-style-type: none"> ● Cultural and Trade Links: <ul style="list-style-type: none"> ○ Interaction between the civilizations of the Indus Valley and Mesopotamia, as well as later spread of Persian culture and language into India, laid an early foundation of cultural and economic exchange. ○ Artifacts such as Indus seals have been found in Iran, and Persian influence is evident in Indian languages, architecture, and cuisine. ● Shared Heritage: The Persian language and Islamic culture strongly influenced North-West India over centuries, with historical ties reinforced by migration, religious scholarship, and trade routes linking both regions.
<p>20th Century - Foundation of Modern Diplomatic Relations</p>	<ul style="list-style-type: none"> ● Official Diplomatic Ties (1950): India and Iran formally established diplomatic relations in 1950. Early political visits included the Shah of Iran's visit to India in 1956 and Prime Minister Nehru's to Iran in 1959, laying a framework for cooperation. ● Changing International Alignments: During the Cold War, India adopted non-alignment and had close ties with the Soviet Union, while Iran was allied with the West under the Shah's regime, leading to a complex but largely cordial relationship.
<p>Post-1979 Era</p>	<ul style="list-style-type: none"> ● Islamic Revolution Impact: After the 1979 Iranian Revolution, India maintained relations while navigating the shift from the Shah's monarchy to the theocratic republic. Despite differences, both sustained diplomatic and economic ties. ● 1990s Cooperation: Both supported the Northern Alliance against the Taliban in Afghanistan, contrasting with Pakistan's support of the Taliban. This alignment fostered closer strategic cooperation. ● 2000s Deepening Ties: India engaged actively with Iran on energy imports, petrochemicals, and infrastructural projects such as Chabahar Port, alongside increasing trade and cultural exchanges.

<p>Contemporary Period</p>	<ul style="list-style-type: none"> • Chabahar Port & INSTC: These projects symbolize India's strategic interest in Iran as a gateway to Central Asia and Europe, bypassing Pakistan and enhancing trade connectivity. • Energy Challenges: US sanctions on Iran compelled India to halt crude oil imports in 2019, but India continues exploring alternative payment mechanisms and investments. • Strategic and Regional Diplomacy: Both countries cooperate on Afghanistan, counter-terrorism, and participate in multilateral forums (NAM, SCO), advocating sovereignty and multipolarity.
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Significance of India-Iran Bilateral Relations:

1. **Energy Security:** Iran was one of India's most reliable and crucial suppliers of crude oil, often providing favorable credit terms. Cooperation in petrochemicals, urea plants, and energy transit remains important for India's long-term needs.
2. **Gateway to Eurasia (Chabahar Port):** The port of **Chabahar** on Iran's southeastern coast is India's most critical strategic asset in the country. It provides a reliable sea-land route that allows India to **bypass Pakistan** entirely to reach Afghanistan and the resource-rich **Central Asian Republics (CARs)**. This port ensures humanitarian and trade access to landlocked Afghanistan.
3. **Regional Stability:** India and Iran share a common interest in a stable Afghanistan, free from extremism and drug trafficking. This convergence of security concerns allows for crucial dialogue and cooperation on regional security challenges.
4. **Economic Complementarity:** Iran has abundant natural resources (oil, gas, fertilizers), which India requires, while India can supply engineering goods, pharmaceuticals, and agricultural products. This economic complementarity ensures a natural basis for trade, provided the financial transfer mechanisms can be secured.
5. **Historical Ties:** India and Iran share millennia of cultural, linguistic (Persian), and intellectual links, creating a foundation of trust and people-to-people bonds. This "civilizational partnership" adds legitimacy and public support to current diplomacy.
6. **People-to-People:** There are strong academic and religious links, with India being home to large Shia and Zoroastrian communities. This shared history provides a foundation of goodwill even when diplomatic ties are stressed.

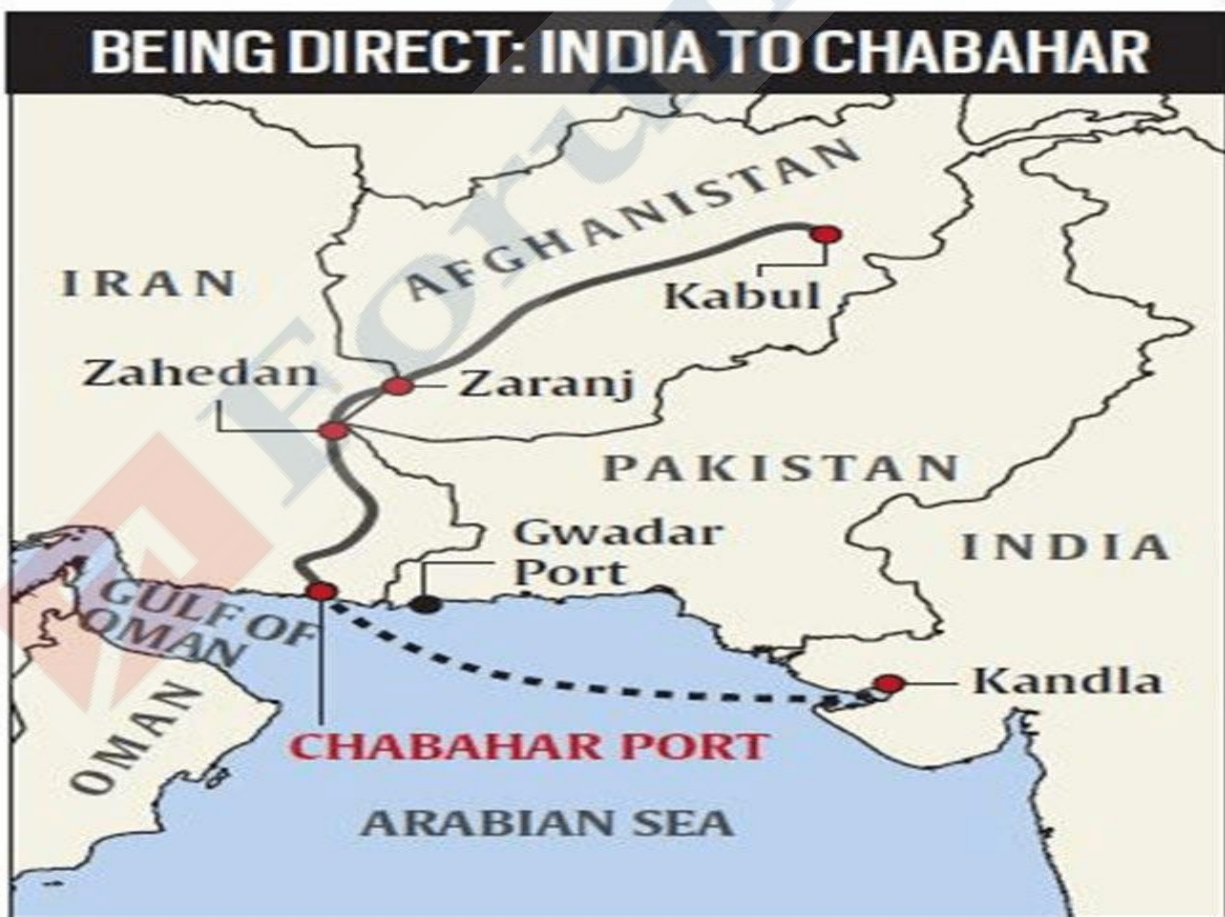
Challenges in India-Iran Bilateral Relations:

1. **Oil Imports Halt (2019):** Under immense pressure from the Trump administration's "maximum pressure" campaign, India was forced to **halt all oil imports from Iran** in 2019. This eliminated the historical economic foundation of the relationship and cost India a reliable supplier that offered favorable payment terms (like rupee payments).
2. **Delayed Execution of Projects:** Delays in operationalizing the Shahid Beheshti terminal at Chabahar Port and related railway/INSTC projects, caused by sanctions, bureaucratic inertia, and lack of commercial certainty, have limited the transformative impact of India-Iran connectivity.
3. **Rail Link Abandonment:** The crucial Chabahar-Zahedan railway link, intended to connect the port to Afghanistan and the INSTC, saw India withdraw from a major financing role due to the sanctions risk, severely undermining the port's long-term utility for regional connectivity.
4. **Geopolitical Rivalries & Balancing Act:**

- India's warming relations with the US, Saudi Arabia, and especially Israel (Iran's regional foes) have made it harder to pursue a robust Iran partnership.
 - Iran's increasing engagement with China and Pakistan (including strategic and infrastructure projects) creates additional friction and limits India's influence in West Asia and Central Asia.
5. **Economic & Trade Constraints:** With oil trade diminished, India's exports (pharmaceuticals, food products) have also stalled, and Rupee-Rial payment mechanisms remain vulnerable to external disruptions.
 6. **Divergences on Regional Security & Terrorism:** Conflicting approaches on Afghanistan, Iran's support for non-state actors (Hezbollah, Hamas), and periodic statements by Iranian leaders on Indian domestic issues (e.g., Kashmir, treatment of Muslims) cause diplomatic discomfort.
 7. **Religious & Societal Sensitivities:** India's Sunni-majority Muslim community and Iran's Shia leadership sometimes lead to divergent positions and occasional rhetorical friction, especially on issues like the status of Indian Muslims and Kashmir.

Areas of Cooperation:

1. **Strategic Connectivity:**
 - **Chabahar Port:** Joint development and operationalization of the Shahid Beheshti terminal at Chabahar provides India critical access to Afghanistan, Central Asia, and Europe. This investment is a geopolitical imperative for India because it:
 - Bypasses Pakistan for trade and humanitarian aid access to **Afghanistan**.
 - Secures a foothold on the Gulf of Oman, enhancing India's maritime reach.



- **International North-South Transport Corridor (INSTC):** Iran is a vital transit country for the INSTC, a multi-modal network designed to connect India to **Russia and Europe** via sea, rail, and road. Cooperation here aims to reduce freight transit time and costs by up to 40%.
- 2. **Energy Partnership:**
 - **Oil and Gas Trade (Historical):** Before US sanctions forced a halt in 2019, Iran was one of India's most reliable and crucial suppliers of **crude oil**, often offering favorable terms and payment arrangements (including rupee payments).
 - **Natural Gas and Fertilizers:** India continues to explore long-term deals for natural gas and has a strong interest in procuring **urea and other fertilizers** from Iran, which are critical inputs for Indian agriculture.
 - Collaboration includes oil field exploration, development of LNG infrastructure, and power transit.
- 3. **Trade & Economic Engagement:**
 - **Non-Oil Trade:** India exports essential commodities like **rice, tea, pharmaceuticals, and engineering goods** to Iran, while importing chemicals, raw materials, and fruits. Efforts are ongoing to find viable, non-sanctioned payment mechanisms to sustain this commerce.
 - Newer engagements include cooperation in petrochemicals, renewable energy, machinery, and the auto sector.
- 4. **Shared Interests in Multilateral Forums:** Both nations cooperate in multilateral organizations (e.g., NAM, SCO) on sovereignty, regional security, and rule-based order, supporting India's profile as an independent, pluralistic voice.
- 5. **Science, Technology & Education:**
 - MoUs on cooperation in science, technology (including pharmaceuticals, biotech, nanotechnology, water management), academic exchange, and joint research.
 - Student and researcher exchanges, government scholarships, and scientific workshops deepen educational ties.
- 6. **Cultural & People-to-People Ties:**
 - Longstanding civilizational bonds, including shared Persian heritage, language, and cultural exchanges are fostered through cultural centres, tourism, and artistic collaborations.
 - India hosts a vibrant Iranian diaspora and continues to promote cross-cultural understanding.
- 7. **Healthcare & Pharmaceuticals:** Enhanced collaboration on pharmaceutical exports and regulatory standards, especially after 2025, and joint initiatives in healthcare supply chains.

Way Forward:

1. **Prioritize Chabahar Port and Connectivity Projects:**
 - Ensure timely completion and expansion of Chabahar Port and associated infrastructure (Zahedan rail link, integration with INSTC), positioning India as a reliable connector to Central Asia and Afghanistan.
 - India must finalize the long-pending **long-term lease agreement** for the Shahid Beheshti terminal at Chabahar. This provides stability, confidence to operators, and secures India's presence.
 - Use Iran's full membership in the Shanghai Cooperation Organization (SCO) and regional trilaterals (e.g., with Armenia) to advance connectivity and trade.
2. **Establishing Sustainable Financial Mechanisms:**
 - **Rupee-Rial Mechanism:** India should explore reviving and formalizing a **rupee-rial payment mechanism** for non-oil trade, focusing on essential Indian exports like

pharmaceuticals, tea, and rice. This mechanism avoids the US dollar system entirely and is crucial for sustaining commercial ties.

- **Barter Arrangements:** Encourage structured **barter arrangements** where India can receive Iranian fertilizers or raw materials in exchange for Indian finished goods, bypassing cash transactions that trigger sanctions flags.

3. Expand Trade & Investment:

- Conclude trade agreements and bilateral investment treaties to diversify the trade basket—pharmaceuticals, agriculture, engineering goods, and new services—with a special focus on MSMEs.
- Promote mutual FDI and joint ventures, modernize customs cooperation, and reduce red tape for smoother bilateral commerce.

4. Strengthen Counterterrorism & Security Collaboration: Institutionalize intelligence sharing, joint military exercises, and crisis management, addressing mutual concerns in Afghanistan and broader regional instability.

5. Maintain Strategic Autonomy & Balance Geopolitics:

- Sustain India's de-hyphenated approach—robust ties with both Iran and Israel/US/Arab Gulf—while asserting independence in foreign policy decisions and regional engagement.
- Engage in dialogue with the US/EU to mitigate the impact of sanctions on vital connectivity and energy projects for regional stability.

6. Leverage Cultural & People-to-People Bonds: Strengthen educational, cultural, artistic, and diasporic engagement, capitalizing on shared historical ties to build goodwill and resilience.

7. Utilise Multilateral Forums: Advocate for common interests in SCO, BRICS, UN, and regional platforms to promote a multipolar order, support rule-based engagement, and coordinate on Afghanistan and counter-terrorism.

Conclusion: By prioritizing the physical connectivity through Chabahar and securing innovative financial channels, India can ensure the relationship survives the current geopolitical winter and is positioned to flourish when external conditions change.

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Read More: [Hindustan Times](#)

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5. **Non-Defense Trade Plateau:** Despite ambitious targets, non-defense trade has generally plateaued between \$6 billion and \$8 billion, highlighting challenges in market access and scaling commercial engagement beyond established sectors.
6. **Intellectual Property Rights (IPR):** Israel, a high-tech exporter, shares concerns with other Western nations regarding India's relatively lenient IPR regime, particularly concerning the protection of software and digital innovation.
7. **Public Opinion in India:** Despite the government's strong public embrace, a significant segment of the Indian public and political opposition maintains traditional sympathy for the Palestinian cause, requiring the ruling party to occasionally temper its rhetoric and maintain a semblance of balance on the issue.

Areas of cooperation between India & Israel:

1. Defence & Security:

- **Arms Trade:** Israel is consistently one of India's top three defense suppliers. India procures critical systems like radar, missile defense shields (e.g., the **Barak 8** system developed jointly), drones, and sophisticated surveillance equipment.
- **Joint Research and Development (R&D):** The focus has shifted from a buyer-seller relationship to joint development and co-production, aligning with India's "Aatmanirbhar Bharat" initiative.
- **Counter-Terrorism:** Extensive intelligence sharing and training cooperation, particularly relevant due to shared security threats.

2. Water & Agriculture:

- **Drip Irrigation and Micro-Irrigation:** Israel has implemented the **Indo-Israel Agricultural Project (IIAP)**, establishing dozens of "Centres of Excellence" across various Indian states. These centres train Indian farmers on high-tech techniques, primarily focused on micro-irrigation, protected cultivation (greenhouses), and maximizing yield with minimal water use.
- **Water Management and Recycling:** Cooperation in water treatment, desalination, and recycling technology to help India address its growing urban water scarcity.

3. Cybersecurity and R&D: Deep cooperation in cybersecurity, and joint research and funding in high-tech areas through the **India-Israel Industrial R&D and Technological Innovation Fund (I4F)**.

4. **I2U2 Grouping:** India and Israel are core members of the I2U2 initiative, along with the **US and UAE**. This group focuses on promoting joint investments in key sectors like food security, water, energy, and transportation infrastructure, demonstrating Israel's role in India's regional economic strategy.

Way Forward:

1. **Deepen Strategic and Defense Cooperation:**
 - Strengthen defense ties by accelerating joint R&D, co-production of advanced military technologies (drones, missile defense, cyber security), and institutionalizing regular high-level dialogues.
 - Expand intelligence and counter-terrorism cooperation, leveraging Israel's expertise and India's regional security needs.
2. **Expand Economic and Investment Collaboration:** Fully implement the 2025 Bilateral Investment Treaty to boost two-way FDI, remove barriers, and scaffold a future Free Trade Agreement to increase trade volumes beyond the current \$7–8 billion.
3. **Enhance Innovation and Technology Exchange:** Foster shared innovation in AI, biotech, cybersecurity, and smart infrastructure utilizing the India-Israel Industrial R&D and Innovation Fund (I4F).
4. **De-Hyphenation through Integration:** By channeling joint investments and projects through the I2U2 framework, India demonstrates that its partnership with Israel is **not exclusive** but is actively beneficial to the Arab world. This provides a diplomatic shield for India's ties to Israel.
5. **Knowledge Corridors:** Establish structured "Knowledge Corridors" linking major Indian R&D institutions (like the IITs and IISc) with top Israeli universities and research centers to ensure a steady flow of research talent and joint discovery.

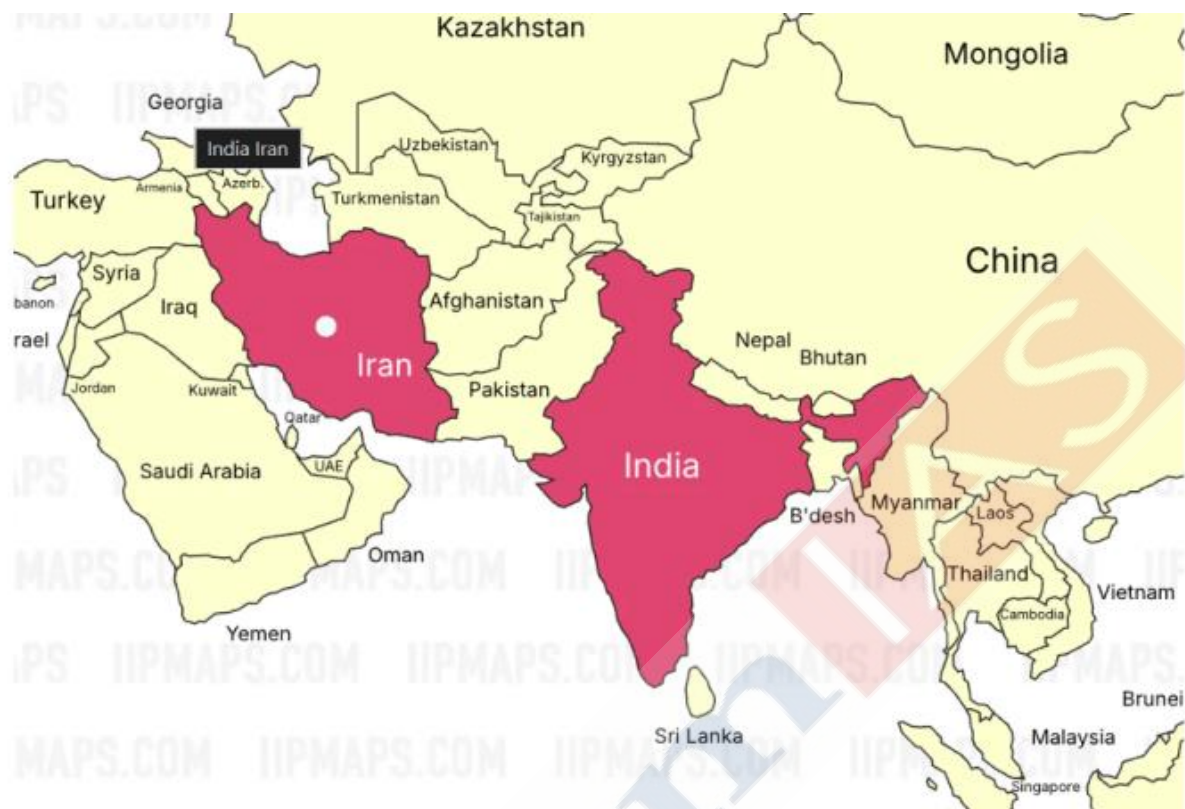
Conclusion: A pragmatic, multi-sectoral, and balanced approach respecting geopolitical sensitivities and focusing on enhanced cooperation will cement India-Israel relations as a cornerstone of India's strategic and innovation-driven growth trajectory.

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India-Iran Relations – Significance & Challenges – Explained Pointwise

The India-Iran bilateral relationship is a deeply **historical, civilizational, and strategically complex** partnership. It is characterized by India's enduring need for **energy security and regional connectivity** balanced against the immense pressure of **US sanctions** and the need to maintain strong ties with Israel and the Gulf states.



Source: Politics for India

Historical development of India-Iran Relations:

<p>Ancient & Medieval Period</p>	<ul style="list-style-type: none"> ● Cultural and Trade Links: <ul style="list-style-type: none"> ○ Interaction between the civilizations of the Indus Valley and Mesopotamia, as well as later spread of Persian culture and language into India, laid an early foundation of cultural and economic exchange. ○ Artifacts such as Indus seals have been found in Iran, and Persian influence is evident in Indian languages, architecture, and cuisine. ● Shared Heritage: The Persian language and Islamic culture strongly influenced North-West India over centuries, with historical ties reinforced by migration, religious scholarship, and trade routes linking both regions.
<p>20th Century – Foundation of Modern Diplomatic Relations</p>	<ul style="list-style-type: none"> ● Official Diplomatic Ties (1950): India and Iran formally established diplomatic relations in 1950. Early political visits included the Shah of Iran's visit to India in 1956 and Prime Minister Nehru's to Iran in 1959, laying a framework for cooperation. ● Changing International Alignments: During the Cold War, India adopted non-alignment and had close ties with the Soviet Union, while Iran was

	allied with the West under the Shah's regime, leading to a complex but largely cordial relationship.
Post-1979 Era	<ul style="list-style-type: none"> Islamic Revolution Impact: After the 1979 Iranian Revolution, India maintained relations while navigating the shift from the Shah's monarchy to the theocratic republic. Despite differences, both sustained diplomatic and economic ties. 1990s Cooperation: Both supported the Northern Alliance against the Taliban in Afghanistan, contrasting with Pakistan's support of the Taliban. This alignment fostered closer strategic cooperation. 2000s Deepening Ties: India engaged actively with Iran on energy imports, petrochemicals, and infrastructural projects such as Chabahar Port, alongside increasing trade and cultural exchanges.
Contemporary Period	<ul style="list-style-type: none"> Chabahar Port & INSTC: These projects symbolize India's strategic interest in Iran as a gateway to Central Asia and Europe, bypassing Pakistan and enhancing trade connectivity. Energy Challenges: US sanctions on Iran compelled India to halt crude oil imports in 2019, but India continues exploring alternative payment mechanisms and investments. Strategic and Regional Diplomacy: Both countries cooperate on Afghanistan, counter-terrorism, and participate in multilateral forums (NAM, SCO), advocating sovereignty and multipolarity.

Significance of India-Iran Bilateral Relations:

- Energy Security:** Iran was one of India's most reliable and crucial suppliers of crude oil, often providing favorable credit terms. Cooperation in petrochemicals, urea plants, and energy transit remains important for India's long-term needs.
- Gateway to Eurasia (Chabahar Port):** The port of **Chabahar** on Iran's southeastern coast is India's most critical strategic asset in the country. It provides a reliable sea-land route that allows India to **bypass Pakistan** entirely to reach Afghanistan and the resource-rich **Central Asian Republics (CARs)**. This port ensures humanitarian and trade access to landlocked Afghanistan.
- Regional Stability:** India and Iran share a common interest in a stable Afghanistan, free from extremism and drug trafficking. This convergence of security concerns allows for crucial dialogue and cooperation on regional security challenges.
- Economic Complementarity:** Iran has abundant natural resources (oil, gas, fertilizers), which India requires, while India can supply engineering goods, pharmaceuticals, and agricultural products. This economic complementarity ensures a natural basis for trade, provided the financial transfer mechanisms can be secured.

5. **Historical Ties:** India and Iran share millennia of cultural, linguistic (Persian), and intellectual links, creating a foundation of trust and people-to-people bonds. This “civilizational partnership” adds legitimacy and public support to current diplomacy.
6. **People-to-People:** There are strong academic and religious links, with India being home to large Shia and Zoroastrian communities. This shared history provides a foundation of goodwill even when diplomatic ties are stressed.

Challenges in India-Iran Bilateral Relations:

1. **Oil Imports Halt (2019):** Under immense pressure from the Trump administration’s “maximum pressure” campaign, India was forced to **halt all oil imports from Iran** in 2019. This eliminated the historical economic foundation of the relationship and cost India a reliable supplier that offered favorable payment terms (like rupee payments).
2. **Delayed Execution of Projects:** Delays in operationalizing the Shahid Beheshti terminal at Chabahar Port and related railway/INSTC projects, caused by sanctions, bureaucratic inertia, and lack of commercial certainty, have limited the transformative impact of India-Iran connectivity.
3. **Rail Link Abandonment:** The crucial Chabahar-Zahedan railway link, intended to connect the port to Afghanistan and the INSTC, saw India withdraw from a major financing role due to the sanctions risk, severely undermining the port’s long-term utility for regional connectivity.
4. **Geopolitical Rivalries & Balancing Act:**
 - India’s warming relations with the US, Saudi Arabia, and especially Israel (Iran’s regional foes) have made it harder to pursue a robust Iran partnership.
 - Iran’s increasing engagement with China and Pakistan (including strategic and infrastructure projects) creates additional friction and limits India’s influence in West Asia and Central Asia.
5. **Economic & Trade Constraints:** With oil trade diminished, India’s exports (pharmaceuticals, food products) have also stalled, and Rupee-Rial payment mechanisms remain vulnerable to external disruptions.
6. **Divergences on Regional Security & Terrorism:** Conflicting approaches on Afghanistan, Iran’s support for non-state actors (Hezbollah, Hamas), and periodic statements by Iranian leaders on Indian domestic issues (e.g., Kashmir, treatment of Muslims) cause diplomatic discomfort.
7. **Religious & Societal Sensitivities:** India’s Sunni-majority Muslim community and Iran’s Shia leadership sometimes lead to divergent positions and occasional rhetorical friction, especially on issues like the status of Indian Muslims and Kashmir.

Areas of Cooperation:

1. **Strategic Connectivity:**
 - **Chabahar Port:** Joint development and operationalization of the Shahid Beheshti terminal at Chabahar provides India critical access to Afghanistan, Central Asia, and Europe. This investment is a geopolitical imperative for India because it:
 - Bypasses Pakistan for trade and humanitarian aid access to **Afghanistan**.
 - Secures a foothold on the Gulf of Oman, enhancing India’s maritime reach.



- **International North-South Transport Corridor (INSTC):** Iran is a vital transit country for the INSTC, a multi-modal network designed to connect India to **Russia and Europe** via sea, rail, and road. Cooperation here aims to reduce freight transit time and costs by up to 40%.

2. Energy Partnership:

- **Oil and Gas Trade (Historical):** Before US sanctions forced a halt in 2019, Iran was one of India's most reliable and crucial suppliers of **crude oil**, often offering favorable terms and payment arrangements (including rupee payments).
- **Natural Gas and Fertilizers:** India continues to explore long-term deals for natural gas and has a strong interest in procuring **urea and other fertilizers** from Iran, which are critical inputs for Indian agriculture.
- Collaboration includes oil field exploration, development of LNG infrastructure, and power transit.

3. Trade & Economic Engagement:

- **Non-Oil Trade:** India exports essential commodities like **rice, tea, pharmaceuticals, and engineering goods** to Iran, while importing chemicals, raw materials, and fruits. Efforts are ongoing to find viable, non-sanctioned payment mechanisms to sustain this commerce.
- Newer engagements include cooperation in petrochemicals, renewable energy, machinery, and the auto sector.

4. Shared Interests in Multilateral Forums:

Both nations cooperate in multilateral organizations (e.g., NAM, SCO) on sovereignty, regional security, and rule-based order, supporting India's profile as an independent, pluralistic voice.

5. Science, Technology & Education:

- MoUs on cooperation in science, technology (including pharmaceuticals, biotech, nanotechnology, water management), academic exchange, and joint research.
- Student and researcher exchanges, government scholarships, and scientific workshops deepen educational ties.

6. Cultural & People-to-People Ties:

- Longstanding civilizational bonds, including shared Persian heritage, language, and cultural exchanges are fostered through cultural centres, tourism, and artistic collaborations.
- India hosts a vibrant Iranian diaspora and continues to promote cross-cultural understanding.

7. Healthcare & Pharmaceuticals:

Enhanced collaboration on pharmaceutical exports and regulatory standards, especially after 2025, and joint initiatives in healthcare supply chains.

Way Forward:

1. Prioritize Chabahar Port and Connectivity Projects:

- Ensure timely completion and expansion of Chabahar Port and associated infrastructure (Zahedan rail link, integration with INSTC), positioning India as a reliable connector to Central Asia and Afghanistan.
- India must finalize the long-pending **long-term lease agreement** for the Shahid Beheshti terminal at Chabahar. This provides stability, confidence to operators, and secures India's presence.
- Use Iran's full membership in the Shanghai Cooperation Organization (SCO) and regional trilaterals (e.g., with Armenia) to advance connectivity and trade.

2. Establishing Sustainable Financial Mechanisms:

- **Rupee-Rial Mechanism:** India should explore reviving and formalizing a **rupee-rial payment mechanism** for non-oil trade, focusing on essential Indian exports like pharmaceuticals, tea, and rice. This mechanism avoids the US dollar system entirely and is crucial for sustaining commercial ties.

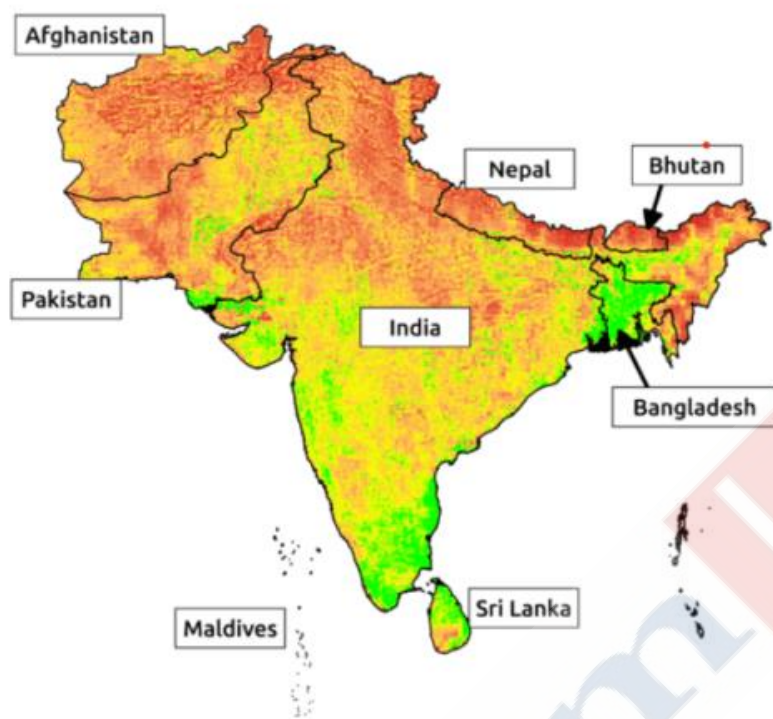
- **Barter Arrangements:** Encourage structured **barter arrangements** where India can receive Iranian fertilizers or raw materials in exchange for Indian finished goods, bypassing cash transactions that trigger sanctions flags.
- 3. **Expand Trade & Investment:**
 - Conclude trade agreements and bilateral investment treaties to diversify the trade basket—pharmaceuticals, agriculture, engineering goods, and new services—with a special focus on MSMEs.
 - Promote mutual FDI and joint ventures, modernize customs cooperation, and reduce red tape for smoother bilateral commerce.
- 4. **Strengthen Counterterrorism & Security Collaboration:** Institutionalize intelligence sharing, joint military exercises, and crisis management, addressing mutual concerns in Afghanistan and broader regional instability.
- 5. **Maintain Strategic Autonomy & Balance Geopolitics:**
 - Sustain India's de-hyphenated approach—robust ties with both Iran and Israel/US/Arab Gulf—while asserting independence in foreign policy decisions and regional engagement.
 - Engage in dialogue with the US/EU to mitigate the impact of sanctions on vital connectivity and energy projects for regional stability.
- 6. **Leverage Cultural & People-to-People Bonds:** Strengthen educational, cultural, artistic, and diasporic engagement, capitalizing on shared historical ties to build goodwill and resilience.
- 7. **Utilise Multilateral Forums:** Advocate for common interests in SCO, BRICS, UN, and regional platforms to promote a multipolar order, support rule-based engagement, and coordinate on Afghanistan and counter-terrorism.

Conclusion: By prioritizing the physical connectivity through Chabahar and securing innovative financial channels, India can ensure the relationship survives the current geopolitical winter and is positioned to flourish when external conditions change.

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South Asian Region – Significance & Challenges – Explained Pointwise

South Asia is one of the most culturally diverse, densely populated, and geopolitically critical regions in the world. It is a region defined by its immense scale, shared history, and complex political geography.



Geographic Boundaries and Features:

- **North:** Dominated by the **Himalayan mountain range**, which includes the world's highest peaks, acting as a massive barrier separating the subcontinent from East and Central Asia.
- **West:** Borders Iran.
- **East:** Borders Southeast Asia (Myanmar).
- **South:** Defined by the **Indian Ocean**, the Bay of Bengal, and the Arabian Sea.

Significance of the region:

1. Demographic Significance:

- **Population Scale:** South Asia is home to nearly 2 billion people—about 25% of the global population—making it the world's most densely populated region.
- **The Demographic Dividend:** The region possesses a massive **youth bulge**, with a large proportion of its population under the age of 30. This presents a huge potential for global economic growth, provided the region can successfully educate, train, and employ this working-age population.
- **Poverty and Development:** Despite recent economic growth, the region still houses a significant portion of the world's extreme poor. Progress in meeting the **Sustainable Development Goals (SDGs)**—especially those related to poverty, sanitation, and health—depends heavily on success in South Asia.

2. Geopolitical & Security Significance:

- **Regional Security Dynamics:** Conflicts over Kashmir, Afghanistan, and terrorism, as well as maritime chokepoints, affect global peace and energy routes.

- **Nuclear Flashpoint:** The **India-Pakistan rivalry** is a core global security concern. As two nuclear-armed states with a long, disputed border and a history of conventional conflict, any escalation poses a catastrophic risk to regional and global stability.
 - **Maritime Chokepoints:** The Indian Ocean, which borders South Asia, is the world's third-largest body of water and contains vital **Sea Lines of Communication (SLOCs)**. Oil and trade routes pass through chokepoints near the region (like the Straits of Malacca and Hormuz), making the security of this maritime space critical for global energy supply and commerce.
 - **The China Factor:** South Asia has become the primary zone for the strategic competition between **India and China**. China's massive investment and infrastructure projects (like the Belt and Road Initiative) across countries like Pakistan, Sri Lanka, and Nepal have deepened its presence, making the region central to the balance of power in Asia.
3. **Economic & Trade Significance:**
- **Global Growth Engine:** India is one of the fastest-growing major economies in the world. Its sheer size means its continued economic expansion contributes significantly to overall global GDP growth and investment cycles.
 - **Trade and Resources:** The region produces textiles, IT services, pharmaceuticals, and agricultural goods vital for global supply chains, and has major reserves of coal, iron, rare minerals, and hydropower potential.
 - **Technology Hub:** India is a global leader in Information Technology (IT) services, software development, and digital innovation. Its skilled labor force and expanding tech ecosystem are integral to the operations of multinational corporations worldwide.
 - **Manufacturing and Supply Chains:** As global supply chains seek to diversify away from China (the "China Plus One" strategy), countries like India and Bangladesh are becoming increasingly important manufacturing hubs for textiles, pharmaceuticals, and electronics.
4. **Environmental & Climate Significance:**
- **Biodiversity:** The region's diverse landscapes—ranging from Himalayas to rainforests and coral atolls—are ecological hotspots of global significance.
 - **Himalayan Water Towers:** The **Himalayan mountain ranges** are the source of major river systems (Indus, Ganges, Brahmaputra) that sustain nearly two billion people across South Asia and parts of Southeast Asia. Glacial melt and changes in monsoon patterns due to global warming pose an existential threat to water security in the entire region.
 - **Monsoon Dynamics:** The South Asian monsoon is a complex weather system that influences global climate patterns. Changes in its predictability and intensity affect agricultural productivity across the subcontinent.
 - **Vulnerability to Sea Level Rise:** Low-lying and densely populated coastal areas, particularly in **Bangladesh and the Maldives**, are critically vulnerable to rising sea levels and intense cyclones, raising the specter of massive climate-induced migration and displacement.
5. **Civilizational Heritage:** Birthplace of Hinduism, Buddhism, Jainism, and Sikhism, South Asia houses UNESCO World Heritage sites, vibrant art, literature, and culinary traditions.

Challenges faced by the region:

1. Geopolitical & Security Challenges:

- **Territorial Disputes and Military Tensions:** Prolonged conflict over Kashmir between India and Pakistan, unresolved borders with China, and maritime disputes remain flashpoints that periodically erupt into violence and stymie regional cooperation.

- **Terrorism and Extremism:** Terrorist networks, religious extremism, and insurgency movements threaten stability and development across the region, with notable impacts in Afghanistan, Pakistan, Bangladesh, and Sri Lanka.
- **The India-Pakistan Rivalry:** This remains the single most important and **destabilizing factor**. As two nuclear-armed states, their perennial conflict leads to military standoffs, cross-border terrorism, and the freezing of diplomatic ties. This rivalry effectively **paralyzes regional bodies** like the South Asian Association for Regional Cooperation (SAARC), preventing meaningful collective action.
- **External Power Competition:** South Asia is a primary theater for the strategic rivalry between **India and China**. China's massive infrastructure and debt-fueled projects (like the Belt and Road Initiative – **BRI**) in countries like Pakistan, Sri Lanka, and the Maldives are viewed by India as strategic encirclement. This competition forces smaller South Asian nations into difficult balancing acts.
- **Border Management and Insurgency:** The region is characterized by long, often porous, and poorly demarcated borders. This contributes to issues like cross-border insurgency, illegal immigration, and the trafficking of arms and drugs, creating persistent internal security challenges for countries like India, Pakistan, and Bangladesh.
- **Instability in Afghanistan:** The situation in Afghanistan, particularly the lack of international recognition for the current regime, creates a security vacuum that risks the spillover of extremism and instability into neighboring countries.

2. Economic Challenges:

- **Low Intra-Regional Trade:** South Asia is one of the least economically integrated regions globally. Less than 5% of its total trade occurs between the SAARC members. This is primarily due to high political friction (trade restrictions between India and Pakistan) and poor infrastructure, which forces nations to trade inefficiently with distant partners.
- **Infrastructure Deficit:** The region lacks adequate cross-border infrastructure, including integrated road networks, rail links, and energy grids. This failure to connect limits the movement of goods and people, artificially inflating the cost of doing business.

3. Social Challenges:

- **Poverty and Inequality:** While income levels are rising, the region is home to a substantial portion of the world's poor. Massive economic inequality, coupled with rapid urbanization, strains public services (healthcare, education) and creates social unrest.
- **Rapid Population Growth and Urbanization:** The region's population pressure, coupled with inadequate urban planning and service provision, fuels slum proliferation, pollution, and social unrest.
- **Gender Inequality and Human Rights:** South Asia struggles with gender gap in education, health, employment, and political representation, exacerbating social tensions and limiting inclusive growth.

4. Environmental & Climate Challenges:

- **Climate Change Vulnerability:** South Asia is one of the world's most vulnerable regions to climate change.
- **Water Stress:** The reliance on the Himalayan glaciers and the monsoon for water makes the region susceptible to both severe flooding and acute drought. Changes in the **monsoon** pattern threaten the agricultural livelihood of hundreds of millions.
- **Sea Level Rise:** Low-lying nations and coastal areas, particularly in **Bangladesh and the Maldives**, face existential threats from rising sea levels and increasingly powerful cyclones, raising the specter of massive climate migration.

- **Water Sharing Disputes:** Disputes over shared river waters (e.g., the Indus, Ganges, Brahmaputra) are a persistent source of friction, particularly between India and Pakistan, and India and Bangladesh. Climate change exacerbates these conflicts by reducing water availability.
5. **Political Challenges:**
- **Fragile Democracies:** Military coups and democratic reversals (as seen in Pakistan and, intermittently, Bangladesh and Nepal) impede institutional development, accountability, and human rights.
 - **Governance and Corruption:** Many countries in the region face significant challenges related to corruption, bureaucratic red tape, and political instability. Weak governance structures often impede foreign investment, complicate economic reforms, and slow down the implementation of essential development projects.

Various initiatives for cooperation in the region:

1. **South Asian Association for Regional Cooperation (SAARC):**
 - SAARC is the primary regional body which was established in 1985.
 - SAARC brings together Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.
 - SAARC summits have been suspended since 2014 due to geopolitical tensions, primarily between India and Pakistan. This has severely limited high-level political cooperation.
2. **South Asian Free Trade Area (SAFTA):** Aims to establish a free trade area among the SAARC member states to reduce tariffs and promote intra-regional commerce. While SAFTA is technically operational (tariffs have been reduced), its potential is drastically undermined by **non-tariff barriers**, political trade restrictions (e.g., restricted movement of goods), and a lack of mutual trust, resulting in extremely low levels of intra-regional trade.
3. **Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC):** BIMSTEC is highly active and avoids the political baggage of the India-Pakistan rivalry. It focuses on countries bordering or relying on the **Bay of Bengal**. It is seen by India as the primary vehicle for regional integration and Act East policy implementation.
4. **South Asia Subregional Economic Cooperation (SASEC):**
 - Brings together Bangladesh, Bhutan, India, Maldives, Myanmar, Nepal, and Sri Lanka, coordinated by the Asian Development Bank.
 - Focuses on cross-border transport corridors, trade facilitation, energy security, ICT infrastructure, and tourism.
5. **Bangladesh, Bhutan, India, Nepal Initiative (BBIN):** Aims to promote deeper integration and connectivity within the Eastern Sub-region of South Asia. **BBIN Motor Vehicles Agreement (MVA)** is designed to facilitate the smooth movement of passenger and cargo vehicles across the borders of the member states. This aims to reduce transit time and boost intra-sub-regional trade.
6. **Energy Cooperation:**
 - **Cross-Border Grid Interconnection:** Initiatives to connect national electricity grids (e.g., between India, Bangladesh, Nepal, and Bhutan). This allows countries with surplus hydropower (like Bhutan and Nepal) to export energy and boosts regional energy security.
 - **Oil and Gas Pipelines:** Projects like the India-Bangladesh Friendship Pipeline for diesel transport are crucial steps toward energy integration.
7. **Health & Disaster Management:**

- **COVID-19 Response:** During the pandemic, SAARC nations utilized specialized funds and virtual meetings to coordinate health responses, demonstrating the potential for cooperation during shared crises.
- **Disaster Management:** The region cooperates on sharing early warnings for cyclones, earthquakes, and tsunamis, recognizing that natural disasters often transcend national borders.

Way Forward:

1. Deepen Regional Economic Cooperation:

- Reform and robustly implement existing platforms like SAFTA, SASEC, and BIMSTEC; reduce trade barriers, harmonize standards, and develop regional value chains focused on innovation and employment.
- Develop and modernize trade infrastructure, cross-border corridors, transport logistics, and multimodal connectivity.
- Member states should agree on a principle that allows economic and connectivity projects to proceed even when high-level political dialogue is strained.

2. Address Political & Security Issues:

- Separate economic and developmental cooperation from political disputes, building mechanisms for conflict resolution, sustained diplomacy, and trust-building—drawing lessons from the EU and ASEAN models.
- Promote Track 1.5 and Track 2 dialogues (government plus civil society/research) to address historic rivalries, terrorism, and strategic mistrust.

3. Cooperation of Environment, Climate & Disaster Management:

- Establish regional climate task forces, shared disaster early warning systems, and a joint carbon market for clean development.
- Launch cross-border renewable energy corridors (solar/wind/hydro), shared climate-resilient agriculture projects, and “Green Buffer Zones” for joint forest management.

4. Energy Security & Connectivity:

- Pursue a regional electricity market (e.g., BBIN, India–Sri Lanka interconnector), allowing countries to trade real-time power, leverage hydropower, and increase low-cost access—reducing CO2 emissions and yielding billions in economic benefits.
- Accelerate joint ventures in information technology, manufacturing, and digital commerce, mirroring successes of integrated regional platforms elsewhere.

5. Human Development & Social Protection:

- Launch regional skill development initiatives, mutual recognition of professional qualifications, and expanded scholarships for youth and women.
- Invest jointly in health cooperation, pandemic response, and shared human capital priorities.

6. Strengthen Regional Institutions:

Strengthen SAARC, BIMSTEC, subregional groupings (BBIN), and cross-border city partnerships and development councils, encouraging coordinated planning and cultural exchange.

7. People-to-People Ties:

Harness shared languages, heritage, and civilizational links to build trust and bottom-up cooperation.

Conclusion: South Asia is significant not just because of its scale, but because its future trajectory—whether it achieves stability, manages its growth, or succumbs to climate and conflict risks—will determine a substantial portion of the world's economy, population, and security environment.

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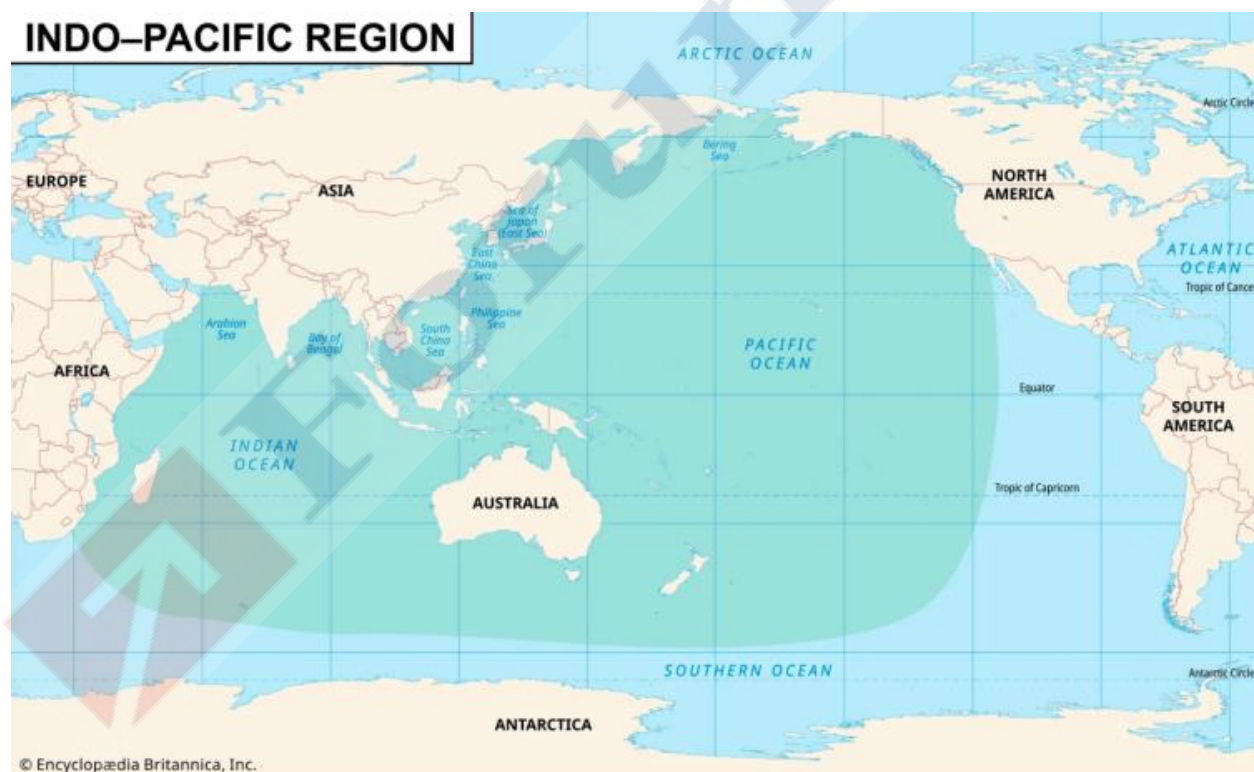
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Indo-Pacific Region – Significance & Challenges – Explained Pointwise

The Indo-Pacific is the most important concept in 21st-century geopolitics and strategy. It is a modern term that defines a unified, interconnected, and dynamic super-region that stretches across two oceans.

What is the Indo-Pacific Region?

- The Indo-Pacific region refers to the vast, interconnected maritime area that spans the Indian Ocean and the Pacific Ocean, including the seas and straits that link them.
- Geographically, it extends roughly from the eastern coast of Africa to the western coast of the Americas, encompassing South Asia, Southeast Asia, East Asia, Australia, and Pacific island nations.
- The Southeast Asian seas, especially the South China Sea and the Strait of Malacca, form the crucial geographical and economic nexus connecting the two oceans.



Significance of Indo-Pacific Region:

Economic Significance	<ul style="list-style-type: none"> ● Global GDP and Population: <ul style="list-style-type: none"> ○ The region encompasses countries that account for over 60% of the world's population and generate over 60% of the global GDP. ○ It includes four of the world's largest economies: the United States, China, India, and Japan, along with the dynamic ASEAN bloc. ● Maritime Trade Routes: <ul style="list-style-type: none"> ○ Essential sea lanes of communication (SLOCs) pass through the region, including the Strait of Malacca, Lombok Strait, and South China Sea. ○ Approximately 32.2 million barrels of crude oil pass through annually, with 40% of global exports originating from the region. <p>Natural Resources:</p> <ul style="list-style-type: none"> ○ The region contains vast offshore oil and gas reserves, with the South China Sea estimated to hold 11 billion barrels of oil and 190 trillion cubic feet of gas. ○ It holds significant mineral resources and fisheries, including 10% of the global fish catch. ○ The oceans in the Indo-Pacific contain immense biodiversity and are crucial for global fish stocks. Sustainable management of these resources is vital for the food security of billions of people in the region.
Geopolitical Significance	<ul style="list-style-type: none"> ● Centre of Great Power Competition: <ul style="list-style-type: none"> ○ The region has become the primary theater of US-China strategic competition, with both powers vying for influence and control. ○ China's Belt and Road Initiative (BRI) represents focused efforts to extend Chinese economic and strategic influence, with investments exceeding \$1 trillion as of 2023. ● The Rise of India: The concept of the Indo-Pacific itself highlights the crucial role of India as a rising democratic power. India's vast geography, massive population, and growing naval capacity are seen by many Western and regional powers as essential for upholding a rules-based international order. ● Security Dynamics: <ul style="list-style-type: none"> ○ The Indo-Pacific faces complex security challenges including territorial disputes in the South China Sea, tensions on the Korean peninsula, across the Taiwan Strait, and various regional conflicts. ○ The region is home to 7 of the world's largest militaries, making it a critical area for global security.

Environmental Significance	<ul style="list-style-type: none"> • The region faces severe climate-related challenges, including sea-level rise, natural disasters, and environmental degradation. • It is the most natural disaster-prone region globally, requiring coordinated responses to climate change impacts.
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India's interests in Indo-Pacific:

1. Security & Strategic Interests:

- **Maritime Security and Freedom of Navigation:** India depends heavily on the Indian Ocean for nearly 95% of its trade, including vital energy imports, making secure sea lanes and freedom of navigation crucial.
- **Countering Chinese Influence:** India aims to counterbalance China's growing presence and assertiveness in the region, particularly through China's Belt and Road Initiative and militarization of the South China Sea.
- **Net Security Provider:** India seeks to position itself as the dominant "net security provider" in the Indian Ocean Region (IOR). This involves working with regional partners (like Sri Lanka, Maldives, Mauritius, and Seychelles) to boost their maritime security capabilities and ensure that no single power dominates the area.

2. Economic Interests:

- **Trade and Investment:** The Indo-Pacific is central to India's ambitions to become a \$10 trillion economy. India seeks to expand trade, maritime connectivity, and economic integration within the region.
- **Act East Policy Integration:** The Indo-Pacific vision is the logical extension of India's "Act East Policy." India aims to better integrate its North-Eastern states with the dynamic economies of Southeast Asia through connectivity projects like the India-Myanmar-Thailand Trilateral Highway.
- **Supply Chain Resilience:** Following the disruptions of the pandemic, India's interest lies in diversifying its supply chains away from a heavy reliance on a single nation. Cooperating with Quad partners on supply chain resilience in critical technologies (like semiconductors and pharmaceuticals) is a core economic goal.

3. Environmental & Resource Security:

- **Sustainable Use of Marine Resources:** India aims to promote sustainable management of fisheries, offshore energy resources, and maritime ecosystems to support long-term regional prosperity.
- **Climate Change and Disaster Resilience:** Addressing environmental degradation and natural disaster risks tied to the fragile Indo-Pacific ecosystems is a key concern for India's regional engagement.

4. Regional Leadership & Diplomacy:

- **Promoting a Rules-Based Order:** India advocates for a rules-based order that respects international law, particularly the United Nations Convention on the Law of the Sea (UNCLOS). This is a subtle way of countering unilateral territorial claims in the South China Sea and ensuring freedom of navigation.
- **Strategic Autonomy:** India uses the concept of the Indo-Pacific to reinforce its commitment to strategic autonomy. India insists that the framework must be "inclusive" (not directed against any single country) and stresses the importance of ASEAN's centrality. This allows

India to maintain strong ties with Russia and Iran while participating in Western-led groupings.

- Engagement with Regional Bodies: Active engagement with ASEAN, BIMSTEC, IORA, and other regional organizations helps India strengthen diplomatic ties and regional cooperation.

5. Cultural & Historical Links: India has longstanding civilizational, cultural, and diaspora ties across the Indo-Pacific, which underpin its soft power and influence within the region.

Various initiatives in the Indo-Pacific Region:

1. ASEAN Centrality:

- The Association of Southeast Asian Nations (ASEAN) is the geographic and institutional core of the Indo-Pacific. All major powers (US, China, Japan, India) explicitly support ASEAN's centrality.
- ASEAN promotes dialogue through forums like the East Asia Summit (EAS) and the ASEAN Regional Forum (ARF), ensuring that regional cooperation remains dialogue-based.

2. Quadrilateral Security Dialogue (Quad):

- A strategic security forum involving India, US, Japan, and Australia.
- Focuses on regional security challenges, maritime cooperation, infrastructure development, and humanitarian assistance.
- Key areas of cooperation include:
 - a. Maritime Domain Awareness: Sharing information and working to ensure freedom of navigation.
 - b. Critical and Emerging Technologies: Collaborating on 5G technology, semiconductors, and supply chain resilience.
 - c. Health and Climate: Joint initiatives on vaccine production and distribution, and climate change adaptation.

3. AUKUS:

- Members: Australia, United Kingdom, and United States.
- A security partnership designed for deeper defense integration and technological sharing. Its most publicized feature is the agreement to help Australia acquire nuclear-powered submarines.

4. Indo-Pacific Oceans Initiative (IPOI):

- Launched by India in 2019 at the East Asia Summit.
- It is a voluntary, non-treaty arrangement focusing on practical cooperation in: maritime security, ecology, resource management, capacity building, disaster risk reduction, science and technology, trade and connectivity.
- Builds upon India's SAGAR vision for inclusive and sustainable maritime growth.

5. SAGAR (Security and Growth for All in the Region):

- India's flagship vision launched in 2015 aiming to strengthen maritime security, economic development, and cooperative relations among Indian Ocean littorals and beyond.
- Focuses on freedom of navigation, anti-piracy, disaster management, and blue economy development.

6. Indo-Pacific Economic Framework (IPEF):

- Initiated in 2022, enhancing economic cooperation among Indo-Pacific partners.
- Emphasizes resilient supply chains, clean energy transitions, fair trade, digital economy cooperation, and sustainable growth.
- Partners include India, US, Australia, Japan and 10 other countries.

7. Act East Policy:

- India's diplomatic and economic outreach to engage ASEAN and East Asian nations.
- Aims to deepen connectivity, trade, cultural ties, and regional integration.

8. Supply Chain Resilience Initiative (SCRI):

- Members: India, Japan, Australia.
- To establish resilient and diversified supply chains to mitigate the risks of geopolitical shocks and reliance on single-country sources, especially in essential goods and raw materials.

9. Regional Cooperation Platforms:

- India engages actively in regional groupings like the Indian Ocean Rim Association (IORA), Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC), ASEAN Regional Forum (ARF), and others.
- These platforms address issues like maritime security, climate resilience, and economic cooperation.

Challenges of Indo-Pacific Region:**1. Geopolitical Rivalries & Security Concerns:**

- Intense strategic competition mainly between India, China, and the United States results in overlapping claims, territorial disputes (notably in the South China Sea and Indian Ocean), and military build-ups.
- The rise of China's Belt and Road Initiative (BRI) and its territorial assertiveness challenge existing regional balances, leading to tensions among regional and extra-regional powers.
- The risk of conflict escalation in flashpoints such as Taiwan, the South China Sea, Korean Peninsula, India-Pakistan war remains high.
- The region is undergoing rapid military modernization. Increased naval deployments, the development of long-range missile capabilities, and the formation of new security pacts (like AUKUS) escalate tensions.

2. Economic & Development Challenges:

- **Infrastructure Debt Traps:** China's Belt and Road Initiative (BRI) offers much-needed infrastructure financing but has often resulted in unsustainable debt for smaller nations (like Sri Lanka and some Pacific Island countries), compromising their economic sovereignty and stability.
- **Supply Chain Vulnerability:** The heavy concentration of global manufacturing in East and Southeast Asia creates a single point of failure. Geopolitical tensions or natural disasters can—and have—led to significant global supply chain shocks. Initiatives to diversify supply chains are still in their early stages.
- **Development Gaps:** The region features immense economic disparity, stretching from highly developed nations (Japan, Australia) to developing economies (Bangladesh, Cambodia). Closing these gaps requires significant, sustainable investment and cooperation on trade facilitation.
- **Lack of Regional Integration:** While trade within the wider Indo-Pacific is high, intra-regional trade within South Asia remains low due to political disputes and poor infrastructure. This failure to integrate economically limits collective growth potential.

3. Non-Traditional Security Threats:

- **Climate Change and Environmental Degradation:** This is an existential threat for many parts of the region. Low-lying island nations and coastal areas (e.g., Maldives, Bangladesh) face

rising sea levels and intense, frequent cyclones. Coastal erosion and changes in the monsoon system threaten food security for hundreds of millions.

- **Maritime Security Challenges:** Non-state threats such as piracy, illegal, unreported, and unregulated (IUU) fishing, and maritime drug smuggling persist, requiring coordinated naval and coast guard cooperation across numerous jurisdictions.
- **Cyber and Information Warfare:** The rapid adoption of digital technology, often without adequate cybersecurity protocols, leaves the region vulnerable to state-sponsored hacking, data theft, and sophisticated disinformation campaigns aimed at undermining democratic processes and national infrastructure.

4. **Maritime Security & Piracy:**

- The region's vital sea lanes are vulnerable to piracy, smuggling, and illegal fishing, threatening safe maritime trade and fishery sustainability.
- Disputes over maritime boundaries and exclusive economic zones (EEZs) pose ongoing risks for peaceful navigation.

Way forward:

1. **Strengthening Multilateralism & Regional Cooperation:**

- Promote inclusive regional frameworks such as ASEAN-led mechanisms, Indo-Pacific Oceans Initiative (IPOI), Indian Ocean Rim Association (IORA), and enhanced cooperation among Quad countries.
- Encourage dialogue, conflict resolution, and confidence-building measures to reduce unilateral attempts and tension hotspots like the South China Sea and Taiwan Strait.

2. **Upholding a Free, Open, Rules-based Order:** Adherence to international law, particularly the United Nations Convention on the Law of the Sea (UNCLOS), to ensure freedom of navigation, overflight, and peaceful dispute settlement.

3. **Enhancing Maritime Security & Safety:**

- Joint exercises, information sharing, and coordinated response to piracy, terrorism, and natural disasters across the Indo-Pacific.
- Capacity building for smaller and vulnerable coastal states to strengthen their maritime domain awareness.

4. **Promoting Sustainable Economic Growth & Connectivity:**

- Develop resilient, interconnected infrastructure in transport, digital, and energy sectors to integrate regional markets inclusively.
- Support supply chain diversification and green technologies via initiatives like the Indo-Pacific Economic Framework (IPEF).

5. **Addressing Environmental Challenges Collectively:**

- Coordinate climate change mitigation, marine ecosystem conservation, disaster risk reduction, and pollution control efforts.
- Share scientific research and best practices for adaptation to rising sea levels and ecosystem preservation.
- Formalize and strengthen mechanisms for joint military and civilian responses to Humanitarian Assistance and Disaster Relief (HADR) operations, recognizing that cyclones, tsunamis, and earthquakes often require seamless regional cooperation.

6. **High-Quality Infrastructure Investment:** Ensure that infrastructure projects funded through initiatives like the Partnership for Global Infrastructure and Investment (PGII) offer transparent, high-

standard, and sustainable alternatives to debt-trap financing. The focus should be on building connectivity that benefits the host nation, not just the donor nation.

Conclusion: The Indo-Pacific region thus represents the epicenter of 21st-century geopolitics, where economic prosperity, security challenges, and strategic competition converge to shape the future global order.

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BIMSTEC – Significance & Challenges – Explained Pointwise

The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is a regional organization that was established on 06 June 1997 with the signing of the Bangkok Declaration.

Introduction:

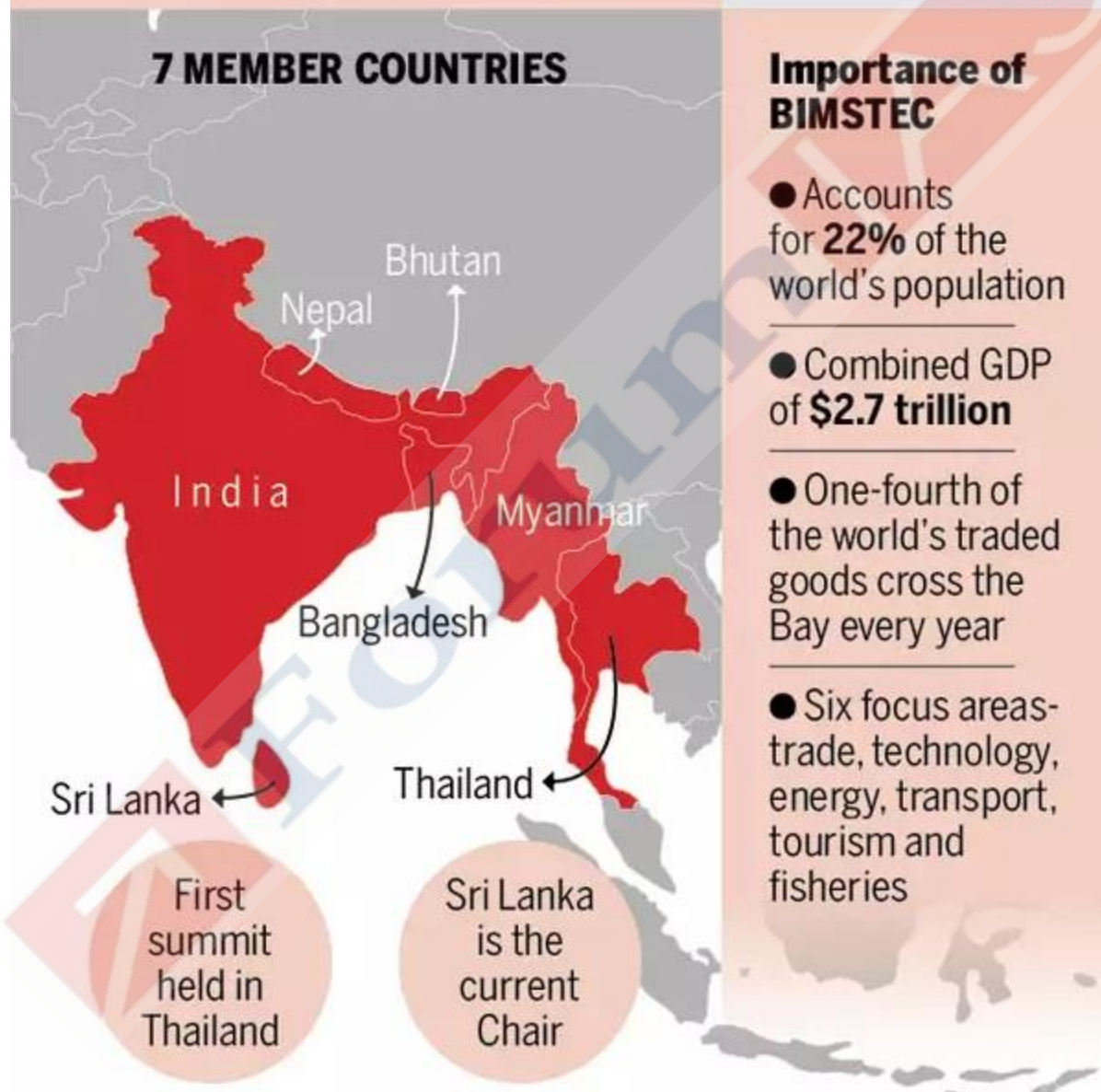
- Initially known as BIST-EC (Bangladesh-India-Sri Lanka-Thailand Economic Cooperation), the organization is now known as BIMSTEC.
- It comprises seven Member States with the admission of Myanmar on 22 December 1997, and Bhutan and Nepal in February 2004. It is headquartered at Dhaka, Bangladesh.
- It not only connects South and Southeast Asia, but also the ecologies of the Great Himalayas and the Bay of Bengal. It aims to create an enabling environment for economic development; accelerate social progress and promote collaboration on matters of common interest in the region.
- **Aim:** To create an enabling environment for economic development; accelerate social progress and promote collaboration on matters of common interest in the region.
- **Significance:** Nearly 1.5 billion people or 22% of the global population comes under the BIMSTEC. Together, it has a combined gross domestic product (GDP) of \$2.7 trillion.



Stands for **The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation**

Founded in 1997 through **Bangkok Declaration**

7 MEMBER COUNTRIES



Importance of BIMSTEC

- Accounts for **22%** of the world's population
- Combined GDP of **\$2.7 trillion**
- One-fourth of the world's traded goods cross the Bay every year
- Six focus areas- trade, technology, energy, transport, tourism and fisheries

First summit held in Thailand

Sri Lanka is the current Chair

Key Organs of BIMSTEC:

1. **BIMSTEC Summit:** The highest decision-making body, comprising heads of state or government from member countries.

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2. **Ministerial Meetings:** Focused on specific sectors such as trade, energy, and transportation.
3. **Senior Officials' Meetings (SOM):** Prepare agendas and facilitate coordination.
4. **BIMSTEC Secretariat:** Located in Dhaka, Bangladesh, the Secretariat oversees day-to-day activities and implements decisions.

Achievements of BIMSTEC:

1. **BIMSTEC Centre for Weather and Climate:** The Memorandum of Association (MoA) on the establishment of this centre was signed in Nay Pyi Taw, Myanmar on 4 March 2014 at the Third BIMSTEC Summit. Currently the BIMSTEC Centre for Weather and Climate Change functions from the National Centre for Medium Range Weather Forecasting (NCMRWF), Noida, Uttar Pradesh, India.
2. **BIMSTEC Energy Centre (BEC):** The First BIMSTEC Energy Ministers Conference held on 04 October 2005, agreed to the setting up of a BIMSTEC Energy Centre (BEC). It aims to share experience in reforms, restructuring, regulation and best practice in the energy sector.
3. The BIMSTEC Permanent Secretariat was opened in 2014 at Dhaka. It helps in better management of regional issues.
4. BIMSTEC Permanent Working Committee (BPWC) to deal with administrative and financial matters of the Secretariat was set up post the 4th Kathmandu summit of 2018.
5. BIMSTEC convention on cooperation in combating international terrorism, transnational organised crime and illicit drug trafficking has come into force in March 2021. It encourages data sharing and intelligence gathering on criminal activities.

Significance of BIMSTEC:

1. **Huge untapped potential:** A study by the Asian Development Bank has identified 167 projects within the BIMSTEC region that can boost connectivity. However, the grouping has to date only focused on 66 of them. The remaining have not yet received enough attention.
2. **Alternative to SAARC:** South Asian Association for Regional Cooperation (SAARC) has largely become defunct because of differences between New Delhi and Islamabad.
3. **Strategic Location:** The Bay region is a key transit route between the Indian and the Pacific Oceans. Therefore BIMSTEC as a grouping can help in ensuring freedom of navigation in the waters. It can also help in harnessing and sharing the Bay's natural wealth.
4. **Combating the web of uncertainties:** The institution can help member states tackle future uncertainties that will arise due to climate change, COVID – 19 pandemic and Russia-Ukraine conflict.
5. **Tackling Security Challenges:** Members of the grouping face several traditional and non-traditional security challenges that can be duly addressed with enhanced cooperation.
6. **Development of North East:** BIMSTEC can boost the development of the northeast region by providing greater interaction with Bangladesh and Myanmar. For instance, the master plan of connectivity includes the India-Myanmar-Thailand trilateral highway and Kolkata-Siliguri-Guwahati-Imphal link.
7. **Better cooperation with ASEAN:** India has already come out of RCEP (Regional Comprehensive Economic Partnership) agreement that may hinder its trade potential. Therefore a more robust cooperation with Thailand and Myanmar can help in resolving India – ASEAN differences and ensure better implementation of 'Act East Policy'. For instance, the BIMSTEC master plan will also promote synergy with other connectivity frameworks such as the ASEAN master plan on connectivity 2025.
8. **Countering China:** BIMSTEC can help in countering China's Cheque Book diplomacy. Further, it can strengthen India's position as a responsible regional power in the Indo-Pacific.

Challenges faced by BIMSTEC:

1. **Stalemate on Agreements:** The Free Trade Agreement (FTA), coastal shipping agreement and motor vehicles agreement have undergone numerous negotiations but no consensus is developed over them.
2. **Priority to Bilateralism:** The focus remains primarily on enhancing bilateral ties, with multilateralism yet to gain ground despite common ecological concerns and a shared past.
3. **Big brother attitude:** Allegations are made on India for playing a dominant role in the organization and neglecting the agendas of small states.
4. **Irregularity in working:** The summits are not held on regular intervals and slow pace is observed in working. For instance, it took almost 17 years to establish a permanent secretariat.
5. **Preference to other organizations:** Countries like Myanmar and Thailand show more enthusiasm towards ASEAN and neglects the vision of BIMSTEC.
6. **Resource Deficit:** Lack of adequate financial and manpower resources is impairing the performance of the body. Although, India is the largest contributor and contributes annually about 32% of the budget.

Way forward:

1. **Economic development:** The members must accelerate our efforts to boost intra BIMSTEC trade and economic ties. They should focus on developing a network of regional supply chains that will reduce our vulnerability to external shocks and give their economies greater resilience and transparency.
2. **Disaster resilience:** India must encourage other member states to consider joining the Coalition for Disaster Resilient Infrastructure (CDRI). This will enhance disaster cooperation as all the BIMSTEC members live in one of the most disaster prone regions of the world.
3. **Controlling Transnational Organised Crime:** The member states cannot ignore the challenges that transnational crime, terrorism, violent extremism or indeed new challenges such as cyber-attacks, pose to them. Considering this, they need to put in place the remaining elements of the legal architecture that will enable their law enforcement agencies to collaborate more closely and more effectively.
4. **Institutional Hedging:** the group should move forward by doing 'institutional hedging'. This means focus should be on developing collective soft as well as hard power for the group. Thereby protecting individual interests and shaping up a regional order that works for all the members involved.
5. **India's Role:** India should project itself as a compatriot and an equal partner to other BIMSTEC member-countries. This will help reduce its trust deficit and ensure better integration in the region.

Conclusion: BIMSTEC over the years has emerged as a promising sub-regional grouping with growing strategic and economic interests of the member states as well as of the international community in the Bay of Bengal region. India remains committed to further building the momentum of regional cooperation under the BIMSTEC framework and make the organization stronger, vibrant, more effective and result-oriented.

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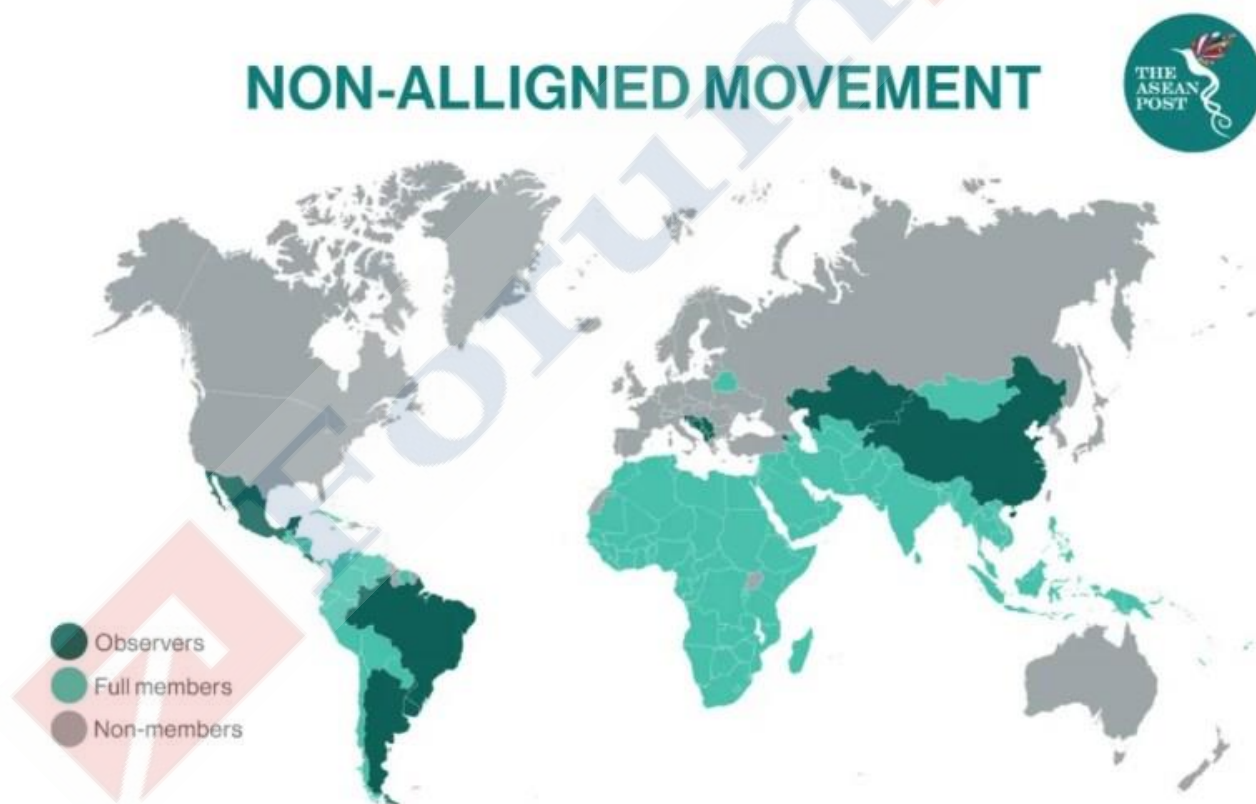
Non-Aligned Movement – Challenges & Relevance – Explained Pointwise

The Non-Aligned Movement (NAM) is a significant international forum of 121 countries. It represents a collective effort by developing nations, primarily from Asia, Africa, and Latin America, to assert their independence in global politics.

2025 marks the 70th anniversary of 1st Asia-Africa Summit, popularly called as Bandung Conference, which laid the foundation of Non-Aligned Movement (NAM). The Asia-Africa Summit gave birth to a new paradigm of South-South Cooperation. It demonstrated the need for the Global South to work together to champion its collective aspirations on the world stage. However, due to shifting global landscape, divergent national interests, rise of alternative platforms, lack of leadership & inaction – questions have been raised about whether NAM is still relevant today or not.

Introduction:

- NAM was started during the cold war as an organization of States which got recently liberated & that didn't seek to formally align themselves with either USA (representing capitalist bloc) or USSR (representing socialist bloc) or their ideologies, but sought to remain independent or neutral.
- However, it doesn't mean that the countries committing to NAM will not take any advantages from either the USA or USSR but means that they will not have any ideological commitments.
- The movement originated in 1955 during **ASIA-AFRICA CONFERENCE** in Bandung – where 29 newly independent Asian & African countries met – which led to the development of a Global South.
- The Organization came into existence in 1961 with **BELGRADE CONFERENCE** under the leadership of India, Yugoslavia, Egypt, Ghana & Indonesia.



Core Philosophy: Policy of non-alignment was based on 5 principles called **PANCHSHEEL:**

1. Mutual respect for each other's territorial integrity & sovereignty.
2. Non-interference in each other's military & internal affairs.
3. Mutual non-aggression

4. Equality & mutual benefit
5. Peaceful coexistence & economic cooperation

Objectives of NAM:

1. **Multilateralism:** Advocating for the democratization of global institutions, particularly reforming the United Nations Security Council to give developing nations a stronger voice.
2. **South-South Cooperation:** Promoting technical, economic, and cultural cooperation among member states.
3. **Sovereignty and Non-Interference:** Strongly opposing unilateral sanctions, external intervention, and any form of economic coercion by powerful states.
4. **Global Challenges:** Addressing issues like climate change, poverty eradication, and countering terrorism.
5. It acts as a collective voice for developing nations on the global stage, advocating for economic cooperation, disarmament, and fair international relations.
6. The movement was instrumental historically in supporting national liberation movements and resisting pressures to join military alliances during the Cold War.

Membership criteria:

1. The Country should have adopted an independent policy based on the coexistence of States with different political and social systems and on nonalignment, or it should have shown a tendency to favor such a policy.
2. The Country in question should support national independence movements in a consistent manner.
3. The Country should not be a member of a multilateral military alliance concluded in the context of great power conflicts.
4. If the Country has a bilateral military agreement with a great power or it is a member of a regional defense pact, the agreement or pact should have not been concluded deliberately in the context of great power conflicts.
5. If the Country has granted military bases to a foreign power, the concession should not have been made in the context of great power conflicts.

Achievement of NAM:

1. **The Voice for Independence:** NAM served as the most powerful diplomatic and moral platform for nations seeking self-determination. By bringing together over 100 member states, it isolated colonial powers like Britain, France, and Portugal, creating overwhelming international pressure at the United Nations.
2. **Support for Liberation Movements:** NAM actively supported national liberation movements across Africa and Asia, notably advocating for the end of apartheid in South Africa and the establishment of an independent Palestine. The movement was instrumental in getting UN resolutions passed against racial discrimination and colonial rule.
3. **De-escalation of Conflict:** By refusing to join either the US-led or the USSR-led military blocs, NAM reduced the geographical scope of the Cold War. The movement ensured that regional conflicts in Asia and Africa did not automatically escalate into direct superpower confrontations.
4. **Nuclear Disarmament Advocacy:** NAM consistently and vocally pushed the superpowers toward disarmament, demanding that resources be shifted from military expenditure to development aid.

5. **The NIEO Demand:** NAM was the driving force behind the demand for a New International Economic Order (NIEO) in the 1970s. This initiative sought to reform the existing global economic institutions (like the World Bank and IMF) to make them more equitable.

Challenges faced by NAM:

1. **Losing relevance:** NAM is based on the philosophy of non-alignment which is rooted in the legacy of colonialism & ideology of cold war. With the end of the cold war & changing world order- NAM seems to be losing its relevance.
2. **Internal Cohesion and Divergent Agendas:**
 - NAM's membership is large and diverse, encompassing countries with vastly different political systems, economic interests, and foreign policy priorities. This diversity leads to difficulties in achieving unity and taking decisive action on global issues.
 - While agreement on broad principles is common, consensus on specific international issues is rare, often resulting in only general statements rather than concrete resolutions or collective action.
3. **Fragmentation and Leadership Vacuum:**
 - The breakup of key founding states (e.g., Yugoslavia) and the lack of strong, natural leaders today have weakened NAM's influence. Some major members have shifted their focus to other alliances or regional groupings.
 - The movement lacks charismatic or widely accepted leaders who can steer its agenda in the current multipolar world.
4. **Perceived Lack of Impact and Action:**
 - NAM is often seen as reactive rather than proactive, preferring criticism or support over hardline resolutions or interventions. Its impact on pressing global issues, such as conflicts, nuclear disarmament, and economic reform, is perceived as limited.
 - The movement's calls for nuclear disarmament and equitable international economic structures have not yielded substantial results, leading to questions about its effectiveness.
5. **Emergence of alternative platforms:** Alternative platforms like BRICS, SCO, G20 etc have emerged with overlapping agendas- reducing the need & scope for NAM.

Contemporary relevance of NAM:

1. **NAM Principles:**
 - The core principles that catalyzed the coming together of leaders of developing world in 1955, i.e. Panchsheel, are equally relevant even today.
 - These principles are required to uphold & defend the rules-based global multilateral system which is under siege today & UN in its present form – has become highly inadequate to address the global challenges.
2. **Representation and Voice for the Global South:** NAM is the second largest grouping of states after the United Nations, comprising 120 member countries and representing nearly two-thirds of UN members and over half of the world's population. It continues to serve as a collective voice for developing nations, advocating for their interests in global forums, especially at the United Nations.
3. **Advocacy Against Neo-Colonialism and Western Hegemony:** In the post-Cold War era, NAM has repositioned itself to confront what it perceives as Western dominance and neo-colonialism, focusing on the marginalization and exploitation of poorer nations in a unipolar world. The movement opposes foreign occupation, interference in internal affairs, and aggressive unilateral measures by powerful states.

4. **Focus on Socio-Economic Challenges:** NAM has shifted its agenda toward addressing economic underdevelopment, poverty, and social injustices, which it identifies as major threats to peace and security for its members. It plays a role in promoting economic cooperation, equitable development, and the reduction of global inequalities, particularly those exacerbated by globalization and neo-liberal policies.
5. **Promotion of Multilateralism and Peace:** The movement remains committed to principles of peaceful coexistence, mutual respect, non-interference, and disarmament. NAM actively supports multilateral approaches to global challenges, including nuclear disarmament, regional security, and the strengthening of international law.
6. **Platform for Unity and Coordination:** NAM provides a forum for developing countries to coordinate their positions on major international issues, enhancing their bargaining power in negotiations with developed nations. It is especially active within the UN system, where NAM countries often debate and advance common positions on issues like development, climate change, and reform of international institutions.

Way Forward:

1. **Permanent Secretariat:** Establishing a central secretariat or headquarters is crucial to ensure continuous coordination, documentation, and implementation of decisions made during NAM summits.
2. **Periodic Review Mechanism:** Introducing mechanisms for regular evaluation of goals and outcomes would enhance organizational accountability and coherence.
3. **Reinterpret Non-Alignment:** NAM should redefine non-alignment as “strategic autonomy” rather than neutrality, focusing on independence in decision-making and balanced relations among major powers.
4. **Partnership Building:** Collaborations with regional blocs such as ASEAN, the African Union, and the G77 can help NAM expand its policy influence beyond traditional alliances.
5. **Symbolic & Structural Renewal:** Proposals have been made to rename or rebrand NAM (for instance, as the “Southern Solidarity Organisation”), revitalizing its identity for modern diplomacy.

Conclusion: The Global South has to be at the forefront of shaping the evolving multipolar world to ensure it is focused on a fair, just, inclusive & equitable global community. In this scenario, NAM remains relevant in the present world as a vital platform for the Global South, championing multilateralism, socio-economic justice, and resistance to global power imbalances.

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UPSC Syllabus GS2: Important international institutions, agencies & fora.

Global Financial Institutions – Significance & Challenges – Explained Pointwise


Global Financial Institutions are pivotal in shaping the global economic landscape. They play a crucial role in fostering global economic stability, facilitating trade, and promoting development in the present increasingly interconnected world. This article aims to study in detail International Economic Organizations, including the International Monetary Fund (IMF), the World Bank Group, and others such as the New Development Bank (NDB), etc.

Introduction:

- Global financial institutions (GFIs) are organizations established by international treaties to provide financial assistance, stability, and cooperation among member nations.
- They form the backbone of the international financial system, playing critical roles in development, crisis management, and promoting free trade.
- The institutions can be broadly categorized into those focused on **Global Stabilization and Regulation** and those focused on **Development Banking**.

Major global financial institutions:

International Monetary Fund (IMF)	<ul style="list-style-type: none"> ● Established: 1944 (Bretton Woods Conference) ● Objective: To ensure the stability of the international monetary system through exchange rate surveillance, lending to countries in crises, and capacity development. ● Key Functions: <ul style="list-style-type: none"> ○ Provides short- and medium-term loans to member countries facing balance of payment difficulties. ○ Monitors global economic trends and provides policy advice. ○ Facilitates international trade by maintaining exchange rate stability.
World Bank Group	<ul style="list-style-type: none"> ● Established: 1944 alongside IMF. ● Objective: Long-term poverty reduction and economic development by financing infrastructure, education, and governance programs. ● Components: <ol style="list-style-type: none"> 1. International Bank for Reconstruction and Development (IBRD) 2. International Development Association (IDA) 3. International Finance Corporation (IFC) 4. Multilateral Investment Guarantee Agency (MIGA) 5. International Centre for Settlement of Investment Disputes (ICSID)

	<p style="text-align: center;">World Bank Group</p>  <p style="text-align: center;">Fig. 4.1 The World Bank Group</p> <ul style="list-style-type: none"> ● Key Role: Provides long-term development loans, grants, and technical assistance to developing countries
World Trade Organization (WTO)	<ul style="list-style-type: none"> ● Established: 1995 (replacing GATT). ● Objective: To promote free and fair international trade through the reduction of tariffs and removal of trade barriers. ● Functions: <ul style="list-style-type: none"> ○ Serves as a forum for trade negotiations. ○ Resolves trade disputes among member nations. ○ Oversees implementation of global trade agreements.
Regional Development Banks	<ul style="list-style-type: none"> ● Asian Development Bank (ADB): Promotes economic growth and regional cooperation in Asia-Pacific. ● African Development Bank (AfDB): Finances sustainable economic projects in Africa. ● Inter-American Development Bank (IDB): Focuses on Latin America and the Caribbean. ● European Bank for Reconstruction and Development (EBRD): Supports transition economies toward market-based policies.
New Development Bank (NDB)	<ul style="list-style-type: none"> ● Role: Established by the BRICS countries (Brazil, Russia, India, China, South Africa) as an alternative MDB. ● Significance: Focuses on funding infrastructure and sustainable development projects within BRICS countries and other emerging

	economies, aiming to reduce dependence on Western-dominated institutions.
Bank for International Settlements (BIS)	<ul style="list-style-type: none"> Established: 1930. Role: Known as the “bank for central banks.” The BIS is the world’s oldest GFI, serving as a forum for monetary cooperation and a central bank for central banks. Objective: Acts as a bank for central banks, fostering monetary and financial cooperation. Significance: It is crucial for financial stability as its standards ensure that banks worldwide maintain enough capital to withstand financial shocks.

Significance of global financial institutions:

- Global Economic Stability:** GFIs maintain stability in the world economy by:
 - Providing emergency financial assistance:** The IMF supports countries facing balance of payments crises, currency collapses, or inflationary shocks, as seen during the global financial crisis and COVID-19 pandemic.
 - Ensuring exchange rate stability:** Through surveillance and consultation, the IMF promotes stable exchange systems and coordinated monetary policies across nations.
- Development Finance and Poverty Reduction:** Institutions such as the World Bank Group, Asian Development Bank (ADB), and African Development Bank (AfDB) provide long-term financial and technical assistance for poverty alleviation and infrastructure development.
- Promotion of International Trade and Investment:** Global financial institutions foster an enabling environment for trade by:
 - Financing trade-related infrastructure and facilitating foreign direct investment (FDI) through entities like the International Finance Corporation (IFC) and Multilateral Investment Guarantee Agency (MIGA).
 - Supporting open and transparent market systems through policy advice and reform frameworks.
- Crisis Management and Reconstruction:** The IMF and World Bank spearheaded financial recovery mechanisms after major crises, such as the Asian financial crisis (1997) and Global financial crisis (2008–09), by providing liquidity, policy guidance, and reform programs.
- Support for Sustainable and Inclusive Growth:** GFIs fund renewable and climate-resilient projects, supporting the global transition toward low-carbon economies. They promote financial inclusion, ensuring access to credit for small enterprises and vulnerable populations.

Challenges associated with global financial initiatives:

- Resource and Funding Constraints:**
 - Many global financial institutions struggle with inadequate capital resources compared to the growing demand for development finance worldwide.
 - The financing gap for sustainable development and climate resilience is estimated in trillions of dollars annually, far exceeding the capacity of current international financial systems.

- This limitation reduces their ability to respond effectively to crises such as the COVID-19 pandemic or natural disasters.
- 2. **Debt Sustainability Issues:**
 - Several developing countries face unsustainable debt burdens, making it difficult to participate in global financial initiatives.
 - Institutions like the IMF and World Bank are often criticized for offering loans instead of grants, leading to debt cycles in vulnerable economies.
- 3. **Conditionalities and Sovereignty Concerns:**
 - Lending programs by the IMF and World Bank often come with policy conditionalities, such as structural adjustment reforms demanding fiscal austerity or privatization.
 - These conditionalities sometimes undermine national sovereignty and local policy flexibility, particularly in low-income countries.
- 4. **Inequality and Unequal Representation:**
 - Decision-making within institutions like the IMF remains skewed toward developed nations, especially the US and European countries, which hold disproportionate voting power.
 - Developing nations often lack a strong voice in framing global financial governance and reform agendas.
- 5. **Geopolitical Tensions and Fragmentation:**
 - Rising geopolitical competition between major powers (like the US, China, and Russia) has fragmented consensus on global economic coordination.
 - Sanctions, trade wars, and foreign policy rivalries disrupt cooperation in financial and trade frameworks.
- 6. **Climate Change and Sustainability Challenges:**
 - Current financial frameworks inadequately address environmental sustainability.
 - Global financial institutions need to balance profit motives with financing green transitions under the Paris Agreement.

Way forward:

1. **Democratizing Institutional Governance:**
 - **Greater Voice for Developing Countries:** Reform quota and voting systems at the IMF and World Bank to reflect the growing economic and demographic weight of the Global South. This includes introducing population and vulnerability criteria in quota formulas and expanding board representation.
 - **Double-Majority Decision-Making:** Introduce systems requiring both a majority of voting shares and a majority of member states to ensure fairer outcomes.
 - **Gender and Geographic Balance:** Promote inclusive leadership with equitable regional and gender representation at decision-making levels.
2. **Debt Reform and Financial Resilience:**
 - **Comprehensive Debt Resolution Mechanism:** Establish a permanent, fair, and transparent sovereign debt restructuring framework involving multilateral, bilateral, and private creditors, especially for debt-distressed nations.
 - **Debt Cancellation and Relief:** Provide targeted debt cancellation or restructuring for low-income and climate-vulnerable states to avoid recurrent crises.
3. **Enhancing Development Finance:**

- **Rebalancing Priorities of the World Bank:** Redirect focus to affordable energy, poverty reduction, and infrastructure development, particularly in least-developed and small island countries.
 - **Expand Concessional and Green Finance:** Increase concessional lending and establish green financing windows through institutions like IDA and the Loss and Damage Fund to address climate adaptation needs.
 - **Encourage Regional Collaboration:** Strengthen coordination among multilateral development banks (MDBs) and regional financial institutions to avoid duplication and ensure efficient resource utilization.
- 4. Promoting Transparency, Accountability, and Anti-corruption:**
- Implement rigorous anti-corruption safeguards and governance standards in all financial assistance programs to build trust and ensure efficient use of public funds.
 - Increase transparency in policy conditionalities to ensure that reforms support national ownership rather than impose external models.
- 5. Integrating Climate and Sustainability Goals:**
- **Climate-linked Financing:** Institutionalize debt-for-climate swaps and integrate sustainability metrics into lending frameworks.
 - **Green Transitions:** Lead global financing for renewable energy, resilient infrastructure, and sustainable agriculture, aligning objectives with the Paris Agreement.

Conclusion: Global financial institutions serve as the pillars of international economic order, providing monetary stability, developmental finance, and crisis recovery mechanisms. However, they need to focus on equal representation, sustainable financing, and transparent governance to make global financing democratic, resilient & inclusive.

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Protectionism – Significance & Challenges – Explained Pointwise

The rise of economic nationalism and geopolitical tensions has led to a recent resurgence of protectionist sentiment globally, often referred to as **de-globalization** or **slowbalisation**.

Introduction:

Protectionism refers to a set of government policies and measures designed to restrict international trade to help domestic industries and workers against foreign competition. It is the opposite of free trade, where goods and services can flow across borders without artificial barriers.

Key Tools & Methods of Protectionism:

Tariffs (Customs Duties)	<ul style="list-style-type: none"> ● Definition: A tax or duty placed on imported goods or services. ● Mechanism: This is the most common and visible form of protectionism. A tariff directly increases the price of the imported product, making the domestic equivalent more competitive. Tariffs also generate revenue for the government.
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	<ul style="list-style-type: none"> ● Example: Imposing a 25% tariff on imported steel makes domestically produced steel cheaper for manufacturers.
Quotas (Import Restrictions)	<ul style="list-style-type: none"> ● Definition: A limit placed on the quantity or monetary value of a specific good that can be imported over a defined period. ● Mechanism: Unlike tariffs, quotas restrict supply regardless of price. By artificially limiting the volume of imports, quotas ensure that domestic producers retain a specific share of the local market. ● Example: Allowing only 5,00,000 foreign cars to be imported annually.
Subsidies	<ul style="list-style-type: none"> ● Definition: Direct or indirect financial assistance provided by the government to domestic producers. ● Mechanism: Subsidies lower the production costs for domestic companies, allowing them to sell their goods at a lower price and compete more effectively against cheaper imports, often without directly taxing the foreign goods. ● Example: Giving tax breaks or cash grants to local farmers or renewable energy companies.
Non-Tariff Barriers (NTBs)	<ul style="list-style-type: none"> ● Strict Quality Standards: Imposing overly strict or complex health, safety, or environmental standards that foreign companies find difficult or expensive to meet. ● Complex Customs Procedures: Using bureaucratic red tape and lengthy inspection processes to delay the entry of foreign goods. ● Local Content Requirements: Mandating that a certain percentage of a product's components must be sourced domestically.

Protectionism in Present Context:

1. **US Tariffs and "America First" Policies:** Trump administration has increased tariffs to 125% on Chinese goods, 25% on Indian imports (for importing Russian oil), 25% on Canadian imports in 2025, emphasizing economic security, reshoring, and leveraging trade barriers as geopolitical tools.
2. **EU Carbon Border Adjustment Mechanism (CBAM):** EU levies carbon-based tariffs on imports of carbon-intensive goods (e.g., steel, aluminum, cement, fertilizers) from countries with weaker climate regulations. This is designed to protect EU industries and incentivize global climate action but effectively acts as a new non-tariff barrier.
3. In 2024, India raised import duties on edible oils from 5.5% to 27.5% to protect domestic farmers, and has also imposed higher tariffs on electronic goods and select machinery to promote "Aatmanirbhar Bharat".

Arguments in favour of Protectionism:

1. **Protecting Infant or Emerging industries:** New industries may struggle to compete against established foreign producers. Temporary protection (tariffs, quotas or subsidies) gives them time to mature, develop technologies, achieve economies of scale, and become globally competitive.
2. **Safeguarding Jobs & Wages:** By limiting imports that threaten domestic industries, protectionism can help preserve jobs, reduce unemployment, and stabilize sectors sensitive to foreign competition (e.g., manufacturing, agriculture).
3. **Maintaining National Security:** Certain industries (e.g., defense, telecom, pharmaceuticals, food) are vital for national security. Protectionist measures ensure reliable domestic supply chains and reduce dependence on potentially hostile nations.
4. **Correcting Trade Imbalances:** Imposing tariffs or quotas on imports can help reduce persistent trade deficits, bolster the balance of payments, and support currency stability—especially for countries suffering from massive import bills.
5. **Preventing Dumping & Unfair Competition:** Anti-dumping duties and other protectionist tools are used to stop foreign firms from selling below-cost to gain market share, which damages domestic producers and may create monopolies once local competitors are eliminated.
6. **Preserving Cultural & Social Values:** Limits on foreign goods and investments can protect traditional industries, cultural heritage, and national identity from being overwhelmed by global brands and standards.

Arguments against Protectionism:

1. **Higher Prices for Consumers (Taxes on Consumers):** Tariffs, quotas, and other barriers raise the cost of imported goods, leading to higher prices for consumers. This reduces consumer purchasing power and overall welfare.
2. **Reduced Consumer Choice:** Protectionism limits the range and quality of goods available in the market. Consumers have fewer options, particularly for innovative or specialized products that may only be available from foreign producers.
3. **Inefficiency & Lack of Innovation:** Protecting industries from competition discourages them from innovating, adopting new technologies, or improving productivity. Inefficient “zombie” companies can survive, consuming resources better used elsewhere.
4. **Retaliation & Trade Wars:** The most destructive consequence of protectionism is the risk of triggering retaliatory actions, leading to damaging trade wars. This retaliation severely harms the domestic industries that are successful exporters.
5. **Global Supply Chain Disruption:** Modern economies are highly interdependent through global supply chains. Protectionist policies break these connections, causing delays, shortages, and increased production costs.
6. **Erosion of Multilateralism and Rule-Based Order:** Protectionism fundamentally challenges the WTO’s core purpose—reducing barriers and ensuring predictable, multilateral rules for trade.

Major Impacts of Rising Protectionism on India:

1. **Reduced Export Competitiveness & Market Access:**
 - **US and EU Tariffs:** Additional tariffs (e.g., US tariffs up to 50% on Indian goods, EU’s Carbon Border Adjustment Mechanism on steel, aluminium) have sharply raised costs for Indian exporters, making products less competitive abroad.
 - **Decline in Exports:** India’s exports, especially in textiles, steel, chemicals, and engineering, have contracted. Merchandise exports in 2023 dropped by 5% over 2022, with non-gems-and-jewelry exports hit especially hard.

- **MSME Impact:** Small businesses, which rely heavily on export markets, have faced order declines, compliance costs, and job losses due to new import restrictions and subsidies favoring local companies in destination markets.
- 2. **Supply Chain Disruptions:** Protectionist measures, especially around semiconductors and EVs, have disrupted supply chains. India imports key components from China, and global trade tensions slow or raise the cost of these imports, threatening “Make in India” and the \$10 billion semiconductor mission.
- 3. **Impact on IT Sector & Services Exports:**
 - **Visa and Digital Restrictions:** Stricter immigration (H-1B) policies, onshoring requirements, and data localization by developed nations threaten India’s IT and professional services sector, which is a primary foreign exchange earner.
 - **Regulatory Barriers:** New rules (data protection, digital sovereignty) in US/Europe increase compliance costs and erode competitiveness for Indian IT firms.
- 4. **Stalled Negotiations:** Persistent protectionist disputes have complicated progress in India’s trade talks with the US and EU, slowing down access to new markets and affecting strategic alliances.
- 5. **Strategic Fallout:** High-profile trade rows have affected India’s ability to sustain balanced relations with both the US/EU and Russia/China, impacting diplomacy and investor confidence.

Conclusion: Indian policies should focus on strengthening bilateral trade agreements, diversifying export markets, and championing reforms in multilateral institutions. India’s geoeconomic success will depend on its ability to balance collaboration with strategic autonomy in a rapidly changing global landscape.

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Hard Power & Soft Power – Significance & Challenges – Explained Pointwise

Hard power and soft power are two contrasting forms of influence used by countries in international relations to achieve their objectives.

Introduction:

- Hard Power and Soft Power are foundational concepts in international relations, used to describe the different ways nations exert influence over others to achieve their foreign policy objectives. They were popularized by political scientist **Joseph Nye** in the late 1980s.
- Soft power and hard power are public diplomacy tools that communicate the nation’s competitive identity and advantage to the world.

Hard Power:

- Hard power is the use of coercive means—primarily military force, economic sanctions, or direct threats—to influence or control the behavior of other countries.
- Hard power is linked with the possession of certain tangible resources, including population, territory, natural resources, economic and military strength, among others.
- Hard power is time-effective and generating hard power requires much less time as its resources are tangible.
- **Key Tools of Hard Power:**

1. **Military Force (The Stick):** The threat or actual use of violence, intervention, or overwhelming military capability e.g. Deploying troops to a border; imposing a naval blockade; invasion.
 2. **Economic Sanctions (The Stick):** Restricting trade, freezing assets, or imposing financial penalties to cause economic pain e.g. Cutting off access to global financial systems (SWIFT); tariffs; banning exports of critical technology.
 3. **Economic Aid (The Carrot):** Offering large monetary incentives, loans, or favorable trade deals conditional on a country adopting certain policies e.g. Offering a developing nation billions in aid in exchange for military basing rights.
- **Examples:**
 1. The US returned to military action in Iraq and direct intervention in Syria.
 2. Russia's annexation of Crimea and destabilization of eastern Ukraine.
 3. China's assertion of its territorial claims in East and South China.
 - **Importance of Hard Power:**
 1. **Immediate Results:** Hard power can bring about swift, decisive outcomes, such as rapid defeat of enemy forces, territorial gains, or enforcement of international law e.g. 1991 Gulf War.
 2. **Deterrence:** The visible strength of a nation's armed forces or economy can prevent aggression or hostile actions by adversaries, protecting sovereignty and allies through deterrent capability.
 3. **Crisis Response:** Hard power enables a nation to respond to immediate threats or crises—such as terrorism, invasions, or nuclear proliferation—when negotiation or persuasion fails.
 4. **Enforces International Norms:** Military action or sanctions can be used against violators of international law (e.g., peacekeeping, anti-terrorism operations), helping maintain global order.
 5. **Strengthens Bargaining Position:** The credible threat of force or economic pressure can enhance a country's leverage in negotiations, compelling concessions from other actors.
 - **Limitations of Hard Power:**
 1. **Breeds Resentment:** Use of force or sanctions often creates deep-seated resentment and backlash, fueling nationalism or radicalism and sometimes prolonging conflicts e.g. anti-American sentiment after the Iraq War.
 2. **Damages Relationships:** Frequent reliance on coercion can strain alliances, isolate states diplomatically, and encourage counter-alliances among rivals.
 3. **High Economic and Human Costs:** Military interventions or large-scale sanctions are expensive, can lead to casualties, infrastructure destruction, humanitarian crises, and years of economic burden.
 4. **Limited Effectiveness for Complex Problems:** Hard power alone cannot solve transnational or long-term challenges (e.g. terrorism, climate change, global pandemics) which require cooperation and shared solutions.
 5. **Legal and Ethical Issues:** Military and economic coercion can violate international law, cause civilian harm, or contravene human rights, damaging legitimacy and leading to global condemnation.

Soft Power:

- Soft power is the ability to shape the preferences and actions of others through attraction and persuasion, rather than coercion. It works through cultural appeal, diplomatic engagement, ideals, and positive international reputation.
- Soft power is persuasive power deriving from attraction and emulation and grounded on intangible resources like tourism, culture, and heritage.
- It is the ability to get what you want through attraction rather than coercion, as used in hard power.
- The importance and relevance of soft power is growing as more of humanity becomes connected. This dramatically enhanced presence everywhere on the globe has the potential to generate a surge of global opinion.
- Soft power is useful in complex situations and helps a nation to achieve difficult outcomes. India received a nuclear waiver in 2008 despite not being a member of NSG because of its history of non-alignment and strong political ideals.
- **Key Tools of Soft Power:**
 1. **Culture and Arts:** The global appeal and dissemination of a country's popular culture, intellectual property, and values e.g. The global appeal of Hollywood, K-Pop, Bollywood, American universities, or international restaurant chains.
 2. **Political Values:** The attraction of a nation's political ideals, such as democracy, human rights, the rule of law, and civil liberties e.g. A country becoming a model for democratic transitions in its region.
 3. **Foreign Policy:** The moral authority and perceived legitimacy of a nation's actions on the world stage e.g. Providing humanitarian aid during a disaster; spearheading global health initiatives; mediating peace talks.
 4. **Public Diplomacy:** Directly communicating with foreign publics through exchanges, broadcasting, and social media e.g. Educational exchange programs like the Fulbright scholarship; state-funded news agencies.
- **Examples of Soft Power:**
 1. **Incredible India Campaign:** It is an international tourism campaign initiated by the government to promote India as a popular tourist destination using India's heritage like images of the Himalayas, the TajMahal, yoga and multiplicity of colorful religious and cultural traditions etc.
 2. **International Day of Yoga:** Prime Minister Modi's effort to have the United Nations declare the International Day of Yoga on June 21 each year is a major step in the right direction.
- **Importance of Soft Power:**
 1. **Long-term Influence:** Soft power builds relationships and global influence that endure beyond immediate crises. It creates networks of friendship, trust, and cooperation that are less likely to be undermined by shifts in government or policy.
 2. **Reduces Backlash:** Relying on attraction and co-option, rather than coercion, soft power can avoid resistance and resentment, making international partnerships more resilient and sustainable.
 3. **Builds Moral Leadership and Legitimacy:** By projecting values like democracy, human rights, scientific achievement, or cultural richness, states can inspire voluntary alignment and standard-setting e.g. US influence in the postwar period; India's use of yoga and Gandhi as global icons.

4. **Enables Multilateral Cooperation:** Soft power facilitates multilateralism, coalition-building, international aid, and climate or peace initiatives by creating positive-sum dynamics, rather than zero-sum rivalries.
 5. **Supports Economic and Security Interests:** A positive international image and relationships built on attraction can indirectly support a nation's economic and security interests by opening markets, ensuring stable alliances, and shaping agendas e.g. Japan's global reputation for quality and reliability; EU's standards-setting power.
- **Limitations of Soft Power:**
 1. **Limited Direct Leverage:** Soft power alone is often insufficient in emergencies or conflicts where hard security, coercion, or immediate compliance are required e.g. deterrence of aggression.
 2. **Vulnerability to Credibility Crises:** Perceived hypocrisy—such as promoting democracy while violating it domestically or abroad—can erode soft power quickly. Reputational damage is hard to repair.
 3. **Cultural or Value Misalignments:** Cultural exports or values that seem attractive in one society may be irrelevant, misunderstood, or seen as imperialistic in another, limiting the universality of soft power.
 4. **Slow Impact:** Soft power operates gradually, often over years or decades, whereas global challenges (wars, pandemics, terror) may demand immediate response.
 5. **Difficult to Measure and Control:** The effects of soft power are indirect, intangible, and often hard to predict or quantify. Shaping foreign perceptions requires consistent effort and favorable global context.

Features	Hard Power	Soft Power
Methods	Coercion, Command, and Payment	Attraction, Persuasion, and Co-option
Basis	Military strength and Economic Size	Culture, Values, and Foreign Policy Legitimacy
Tools	Sanctions, Military Aid, Tariffs, Force	Diplomacy, Educational Exchanges, Cultural Exports, Aid
Timeframe	Short-term, Immediate Results	Long-term, Sustainable Influence
Risk	High risk of resentment, backlash, and costly retaliation.	Low risk; builds mutual understanding and legitimacy.

Ideal Use	Crisis, conflict, national security	Long-term influence, global leadership
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The Rise of Smart Power:

In modern international relations, few nations rely exclusively on one form of power. Instead, the concept of Smart Power has emerged.

- Smart power is defined as the capacity of an actor to combine elements of hard power and soft power in ways that are mutually reinforcing such that the actor's purposes are advanced effectively and efficiently.
- Smart power draws from both hard and soft power resources. It is an approach that underscores the necessity of a strong military, but also invests heavily in alliances, partnerships, and institutions.

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Nuclear Disarmament & India's Stance – Explained Pointwise

The Stockholm International Peace Research Institute (SIPRI) has released its yearbook. The Report has highlighted some worrying trends in international security in the past year. The expected rise of the global nuclear arsenal was the chief cause of concern among SIPRI experts.

The data, primarily compiled in the *SIPRI Yearbook 2025*, highlights a significant and dangerous shift: **the post-Cold War trend of nuclear disarmament has stopped, replaced by a new era of modernization and transparency collapse**. Considering this scenario, it is imperative countries come forward and take prudent steps in order to move towards Nuclear Disarmament.

About Nuclear Weapons:

- A nuclear weapon is a device designed to release energy in an explosive manner as a result of nuclear fission, nuclear fusion, or a combination of the two processes.
- Fission weapons are commonly referred to as atomic bombs. Fusion weapons are also referred to as thermonuclear bombs or, more commonly, hydrogen bombs. Nuclear weapons produce enormous explosive energy. For example, the atomic bomb dropped on Hiroshima, Japan, in 1945, contained only about 64 kg (140 pounds) of highly enriched uranium. However, it released energy equaling about 15 kilotons (1000 tons) of chemical explosive.

What are the key findings of the SIPRI Report 2025?

- The total estimated global nuclear warheads as of January 2025 stands at 12,241, with 9,614 warheads in military stockpiles and 3,912 deployed.
- India's arsenal has grown from 172 (2024) to 180 warheads, which now surpasses Pakistan's 170. China's stockpile expanded fastest, reaching 600 warheads, with around 24 deployed.
- All nine nuclear-armed states—US, Russia, France, UK, China, India, Pakistan, Israel, North Korea—continued modernization and expansion of their nuclear delivery systems and warheads in 2024.
- The report highlights a “crisis” in global arms control regimes: New START—the last major US-Russia nuclear treaty—remains in force only until 2026, with no sign of renewal.

- SIPRI warns of increased instability due to rapid advances in AI, cyber capabilities, space assets, missile defense, and quantum technologies. These technologies create new domains of arms races and complicate traditional arms control mechanisms.



Note: The boundaries used in this map do not imply any endorsement or acceptance by SIPRI.

Source: SIPRI

Why do countries value Nuclear Weapons?

1. **Symbol of modernization:** Adding nuclear weapons to the arsenal shows that the military is getting prepared for future emergencies and attaining modern capabilities. Countries are focusing on development of newer and more efficient nuclear submarines, aircraft carriers, fighter jets, manned and unmanned aerial vehicles etc.
2. **Deterrence Effect:** Nuclear weapons create a deterrence effect even on strong military powers. For instance, many experts are saying that Russia wouldn't have invaded Ukraine if the latter hadn't given up nuclear weapons in early 1990s.
3. **Regional Superiority:** Any country which desires to establish a steady control over its region wishes to obtain/retain control of nuclear weapons. For instance, the U.S exercises substantial control over the American continent due to its huge arsenal of nuclear weapons.
4. **Permanent Membership of UNSC:** Permanent members enjoy veto over the decisions of the UN and in a way controls the world affairs. All of them possess a huge arsenal of nuclear weapons which was a crucial factor kept in mind while offering them a permanent seat in UNSC.

What is the need for Nuclear Disarmament?

1. **Huge Magnitude of Destruction:** The Nuclear Explosion at Hiroshima released energy equaling about 15 kilotons of chemical explosive. The blast immediately produced **a strong shock wave, enormous amounts of heat, and lethal ionizing radiation**. The enormous toll in destruction, death, injury, and

sickness produced by the explosions at Hiroshima and Nagasaki was on a scale never before produced by any single weapon.

2. **Against the Rules of War:** Nuclear Weapons can't strictly obey the rule of differentiating between combatants and civilians. Even if it is used over the military, then also radiation can impact nearby civilian populations.
3. **Sovereign Equality:** The destruction of nuclear weapons is imperative to truly realize the principle of sovereign equality of nations. Otherwise the world would remain divided between nuclear haves and have nots.
4. **Fake Triggers:** As per recent reports, the U.S and Russia have a sufficient nuclear arsenal to completely destroy the earth. In such a scenario, any fake trigger using misinformation or fake news can destroy the very existence of human beings from earth.
5. **Non state Actors:** The growing recruitment of educated youth in terrorist organizations raises a fear that they may attain nuclear prowess in future. This situation can be disastrous and bring a state of anarchy as terrorists have no regard to international law.

What steps have been taken to prevent Nuclear Proliferation?

1. Non-proliferation of Nuclear Weapons (NPT), 1968:

- It was put forward by the USA, UK and USSR. It was signed in 1968 and came into force in 1970.
- The treaty has 3 pillars:
 - a. **Non-proliferation:** Nuclear Weapon States (NWS) pledge not to transfer nuclear weapons and technology and Non-nuclear Weapon States pledge not to acquire nuclear weapons.
 - b. **Disarmament:** All parties to pursue good-faith negotiations on effective measures to control nuclear arms race, and to general and complete disarmament.
 - c. **Peaceful Use of Nuclear Energy:** The Treaty recognizes the right of all Parties to develop nuclear energy for peaceful purposes.
- India considers the treaty discriminatory as it creates a club of '**nuclear haves**' and a larger group of '**nuclear have-nots**' by restricting the legal possession of nuclear weapons to those states that tested them before 1967. India hasn't signed the treaty. Pakistan, Israel and South Sudan are other non-signatory countries.

2. Treaty on the Prohibition of Nuclear Weapons, 2017: It prohibits and makes it illegal to possess, use, produce, transfer, acquire, stockpile or deploy nuclear weapons. States are also prohibited from using or threatening to use nuclear weapons and other nuclear explosive devices. It came into force in 2021.

3. Export Control Groupings: Nuclear Suppliers Group (NSG) and the Missile Technology Control Regimes (MTCR) are some of the nuclear export control groupings. These ensure that nuclear fuel export doesn't result in nuclear weapons development.

4. Conference on Disarmament (CD):

- It is a multilateral disarmament forum established by the international community to negotiate arms control and disarmament agreements based at Geneva.
- The Conference was first established in 1979 as the Committee on Disarmament.
- It was renamed as the Conference on Disarmament in 1984.
- The Conference succeeded three other disarmament-related bodies:
 - a. Ten-Nation Committee on Disarmament (1960)
 - b. Eighteen-Nation Committee on Disarmament (1962–68)

C. Conference of the Committee on Disarmament (1969–78)

What is India's Nuclear Doctrine?

1. Building and maintaining a credible minimum deterrence.
2. A 'No First Use' policy i.e. nuclear weapons to be used only in case of any nuclear attack on Indian territory or on Indian forces anywhere.
3. Non use of nuclear weapons against non-nuclear weapon states.
4. Nuclear retaliatory attacks to be authorised only by civilian political leadership through the Nuclear Command Authority.
5. Nuclear retaliation to a first strike will be massive and designed to inflict unacceptable damage.
6. India may retaliate with nuclear weapons to retaliate against attacks with biological or chemical weapons.
7. Strict controls on export of nuclear and missile related materials and technologies.
8. A commitment to the goal of a nuclear weapon free world.

What is India's Stance on Nuclear Disarmament?

- India is fully committed to complete Nuclear Disarmament. India supports complete disarmament within a specified timeframe which distinguishes its stance from Nuclear Weapon States (NWS) which have an ambiguous stand regarding timeline for disarmament.
- India also insists that disarmament must be 'non-discriminatory' and pursued 'on the basis of equality' i.e., there must be no discriminatory provisions in favor of NWS as is the case with the Non-Proliferation Treaty (NPT). The NPT calls for ultimate elimination of nuclear weapons but hasn't put a timeframe for the same. India calls for complete disarmament despite being a non-signatory of the NPT.

What lies ahead?

1. The recent geopolitical events transpiring around the world in practically all regions have made the global security climate more unstable. It is further aided by actions of authoritarian leaders of not just non-democratic systems but also of strongmen leaders of democratic systems.
2. The two largest nuclear weapons holding states need to take on a more engaging role in the international arena. SIPRI's yearbook should force the Governments to look critically at how the global disarmament project seems to be going.
3. Apart from this, clear and constant communication between Nuclear weapon states is desired in order to avoid the usage of a nuclear weapon based on fake news or misinformation.

Conclusion: The nations must come forward and prepare a road map for a gradual phase down of nuclear weapons. It is sine qua non for long term well being of humankind keeping in mind the saying of **Albert Einstein** – “*I do not know with what weapons World War III will be fought, but World War IV will be fought with sticks and stones*”.

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Read More: [SIPRI](#)

Global Governance – Significance & Challenges – Explained Pointwise

India, as the current president of the International Institute of Administrative Sciences (IIAS), has proposed the development of a new International Governance Index. In this regard, let us comprehensively understand what global governance actually stands for.



What is Global Governance?

- Global governance refers to the system of institutions, rules, norms, and processes that enable international cooperation and collective decision-making on issues that cross national borders and affect multiple countries or humanity as a whole.
- Unlike national governance, global governance operates without a single world government, relying instead on a web of international organizations, agreements, and both formal and informal mechanisms to address global challenges.

Key Features of Global Governance:

1. **Multilevel and Multiactor:** Involves states, intergovernmental organizations (like the UN, WTO, IMF), non-governmental organizations (NGOs), businesses, and civil society. Cooperation happens across local, national, regional, and global levels.
2. **Rules and Norms:** Establishes shared standards, norms, and rules (e.g., treaties, conventions, codes of conduct) to manage global problems such as climate change, human rights, trade, and health.
3. **Consensus and Collaboration:** Lacks an overarching authority, so emphasis is on consensus-building, negotiation, and voluntary compliance.
4. **Adaptability:** Evolves to address emerging issues—such as pandemics, cyber security, or environmental degradation—by developing new frameworks or institutions.
5. **Shared Responsibility:** Aims to manage risks (e.g., war, disease, financial crises) that individual states cannot address alone.

Examples of Global Governance:

- **United Nations (UN):** Coordinates on peace, security, development, and human rights.
- **World Trade Organization (WTO):** Sets rules for international trade and resolves disputes.
- **Paris Agreement:** International climate accord for reducing greenhouse gas emissions.
- **World Health Organization (WHO):** Manages global health concerns like pandemics.
- **International Monetary Fund (IMF):** Provides financial stability and assistance to economies in crisis.
- **Universal Declaration of Human Rights:** Articulates shared basic rights and freedoms protected globally.

Need for Global Governance:

1. **Rising volatility and harmful “isms”:** Unilateralism, protectionism, isolationism, separatism, terrorism, extremism, and hegemonism threaten order. **Without joint rules and coordination, the risk of “jungle law” grows.**
2. **Shared health risks:** COVID-19 showed why **coordinated action, information-sharing, and equitable access** matter. **Strengthening global health governance** prevents future crises and saves lives.
3. **Climate action and sustainability:** The world needs joint effort to **cut emissions** and protect **global public goods** such as oceans, climate, and forests. No country can protect them alone. Common rules and joint action help reduce emissions, manage resources, and address cross-border environmental harm.
4. **Agenda 2030 implementation:** The Sustainable Development Goals are universal. Progress needs cooperation across economic, social, and environmental areas. **Global governance keeps focus on the goals, aligns actions, and supports countries to localise targets.**
5. **Financing for development:** Delivering the SDGs needs predictable finance and capacity. The Addis Ababa Action Agenda offers a framework. Global governance helps mobilise resources, guide investments, and support countries that need assistance.
6. **Peace, security, and stability:** Conflicts and tensions spill across regions. Shared mechanisms for peacekeeping, dialogue, and dispute resolution lower the risk of escalation. **Cooperation protects people and upholds basic rights.**
7. **Inclusive voice and fairness:** Many countries seek a stronger role in decisions that affect them. Global governance can **increase participation of developing countries** and make processes more fair, transparent, and trusted.
8. **Integrated and long-term coordination:** Problems are interconnected, but institutions often work in silos. A coordinated system helps actors work together, review progress, and adjust course based on trends and evidence. **This improves results and reduces duplication.**

Challenges in Global Governance:

1. **National interests and fragmentation.** Countries often prioritize national interests over collective action, making it difficult to reach consensus on global issues.
2. **Lack of Accountability and Representation:** Global governance institutions are often criticized for lacking transparency and failing to represent the voices of developing countries and marginalized communities.
3. **Limited Enforcement Mechanisms:** Unlike national governments, global governance bodies lack the authority to enforce decisions. They rely on cooperation and voluntary commitments from member states.

4. Institutional misalignment:

- Existing structures are not designed for problems that span multiple sectors. Mandates and workflows do not match integrated goals.
- Many global regimes cover overlapping areas. Links among them are unclear, which creates gaps and friction.

5. Localisation gap: Global targets often do not translate smoothly into national and sub-national plans. Ground-level adaptation remains uneven.**6. Financing gap:** Financing frameworks exist on paper, yet policies and resources do not consistently align with agreed priorities. This slows delivery on commitments.**7. Short-term focus:** Immediate shocks dominate attention. Trend tracking and timely course correction receive less sustained focus, which affects steady progress toward Agenda 2030.**Reforms required in the present global governance structure:****1. Democratization and Representation:**

- **UN Security Council Reform:** Expand permanent and non-permanent seats to include emerging economies and underrepresented regions like Africa, Latin America, and South Asia. This would make the Council more representative and better equipped to address contemporary geopolitical realities.
- **Voting Power in Bretton Woods Institutions:** Adjust decision-making and voting rights in the International Monetary Fund (IMF) and World Bank to reflect the economic weight and needs of rapidly growing economies, not just legacy powers.

2. Strengthening & Modernising of Global Governance Institutions:

- **Enforcement Mechanisms:** Enhance the ability of institutions to enforce international law, human rights, and treaty obligations, closing the gap between resolutions and real-world impact (e.g., in responses to conflicts, sanctions, or climate commitments).
- **Multilateralism Renewal:** Bolster multilateral cooperation (especially in the United Nations, G20, WTO, WHO, and other platforms) to handle issues such as global pandemics, cross-border terrorism, and financial crises through collective action, not just bilateral or regional clubs.

3. Inclusivity, Equity & Capacity Building:

- **Greater Voice for the Global South:** Ensure developing countries play a central role in crafting global rules—thereby improving legitimacy and addressing power imbalances dating from the colonial era.
- **Financial Architecture Overhaul:** Reform global financial systems (e.g., debt relief, climate finance, SDR allocation) to assist the poorest and most vulnerable countries in achieving Sustainable Development Goals (SDGs) and dealing with external shocks.

4. Transparency, Accountability & Participation:

- **Transparent Decision-Making:** Revamp processes in international bodies to prevent closed-door decisions by a few powerful actors. Open up space for meaningful participation by civil society, women, youth, and marginalized communities.
- **Technological Integration:** Utilize AI, big data, and digital tools for transparent governance, public monitoring, and early crisis detection.

5. Flexible Structures: Create new, adaptive governance bodies and treaties to address emerging threats (like cyber-security, biotechnology, misinformation, and planetary health) that existing institutions struggle to govern.

6. **Supranational and Localized Approaches:** Integrate supranational policy frameworks with strong local engagement for more holistic global solutions to crises (like pandemics and climate change).

Conclusion: A successful reform agenda requires not just technical fixes, but a renewed commitment from the most powerful states to prioritize collective global stability over short-term national gain.

UPSC GS-2: International Relations

Read More: [The Indian Express](#)

Air Pollution In Delhi- Reasons and Solutions- Explained Pointwise



The air pollution in Delhi is again in the news, with the **worsening of Delhi's air quality**. The AQI in certain areas of Delhi has been recorded at its worst in the last 3 years. The choking air pollution has led to the invocation of **Graded Response Action Plan** (GRAP) in Delhi-NCR region. In fact, the Delhi government, in partnership with IIT Kanpur, has recently **implemented artificial rain experiments (cloud seeding)** as an emergency measure to combat its chronic air pollution crisis.

In this article we will look into the reasons for air pollution in Delhi. We will also look at the possible solutions to combat this climate health emergency.



Source- The Indian Express





What is air Pollution and how is it measured in India?

Air Pollution: Air pollution is the introduction of chemicals, particulates or biological materials into the atmosphere that cause discomfort, disease, or death to humans.

Measurement of Air Pollution In India:

- In India, air pollution is measured according to the National Air Quality Index developed by Central Pollution Control Board (CPCB) in 2014.
- The measurement of air quality in the NAQI framework is based on **eight pollutants**, namely- **Particulate Matter (PM₁₀)**, **Particulate Matter (PM_{2.5})**, **Nitrogen Dioxide (NO₂)**, **Sulphur Dioxide (SO₂)**, **Carbon Monoxide (CO)**, **Ozone (O₃)**, **Ammonia (NH₃)** and **Lead (Pb)**.

Categorization of Air Quality under AQI:

AQI	Remark	Colour Code	Possible Health Impacts
0-50	Good		Minimal Impact
51-100	Satisfactory		Minor breathing discomfort in sensitive people
101-200	Moderate		Breathing discomfort to people with asthma and heart disease.
201-300	Poor		Breathing discomfort to most people on prolonged exposure.
301-400	Very Poor		Respiratory illness on prolonged exposure
401-500	Severe		Affects healthy people and seriously impacts those with existing diseases.

Source- CPCB

Read More- [Air Quality Standard of India](#)

What are the reasons for the rise in air pollution in Delhi?

1. **Stubble Burning:** Stubble burning in Punjab, Rajasthan, and Haryana emits large amounts of toxic pollutants in the atmosphere. These pollutants contain **harmful gases** like methane (CH₄), carbon monoxide (CO), volatile organic compounds (VOC) and carcinogenic polycyclic aromatic hydrocarbons. The **IIT consortium report** have estimated that stubble burning contributed up to **35% of Delhi's PM 2.5 levels** during the peak October-November season.
2. **Reduced Wind Speed:** Low-speed winds in winters are unable to disperse these pollutants effectively. Further, Delhi lies in a **landlocked region** and does not have the geographical advantage of sea breeze to disperse the suspended pollutants.

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3. **Effect of Northwesterly winds:** After the withdrawal of monsoons, the predominant direction of winds in northern India is northwesterly. These northwesterly winds bring the **dust from the gulf region**, northern Pakistan and Afghanistan.
4. **Dip in Temperatures lowers the inversion height:** With the decrease in temperature, **inversion height lowers down, leading to concentration of pollutants in the lower atmosphere**. (Inversion height is the layer beyond which pollutants cannot disperse into the upper layer of the atmosphere).
5. **Vehicular Pollution:** Delhi has one of the **highest number of registered private vehicles** in India. Official emissions inventories of 2018 show that vehicles emit about 40 per cent of the particulate load in the city of Delhi.
6. **Construction Activities and Open Waste Burning:** Pollution due to **landfill burning and construction debris** enhances the pollution levels in the Delhi NCR region.
7. **Firecrackers:** Firecrackers burning during Diwali further adds to the increase in air pollution levels.
8. **Urban development strategy in India:** The current strategy focuses on real estate development, a widening of roads and allowing large fuel guzzling vehicles which are major reasons for increased pollution.
9. **Expansion of 'Grey' infrastructure:** Water bodies, urban forests, green cover, and urban agriculture have all reported shrinkage, and "grey" infrastructure has seen rapid expansion.
10. **Land use change:** The handing over of open spaces to real estate developers and lack of any meaningful afforestation affects the city's ecology.
11. **Promotion of car sales:** Widening roads induces people to buy more cars, thus leading to more pollution levels.
12. **Construction activities:** It contributes roughly 10% of air pollution in Delhi-NCR. There are hardly any steps being taken to monitor construction activities.

What are the harmful effects of air pollution?

The harmful effects of air pollution have been tabulated below:

Economic effects	<p>(1) Leads to loss of labour productivity, GDP and per capita income levels. (The Confederation of Indian Industry estimates that air pollution costs Indian businesses \$95 billion, or 3 per cent of India's GDP every year). (Poor air amounts to about Rs 7 lakh crore of annual economic loss, which is more than a third of our annual GST collection)</p> <p>(2) Air pollution reduces agricultural crop yields and commercial forest yields.</p>
Human Health Effects	<p>(1) Air pollution leads to multiple health conditions including respiratory infections, heart disease and lung cancer.</p> <p>(2) As per the Global Burden of Disease comparative risk assessment for 2015, air pollution exposure contributes to approximately 1.8 million premature deaths and loss of 49 million disability adjusted life-years (DALYs) in India.</p>

Environment	<p>(1) Acid Rain: Damages crops, natural vegetation, soil chemistry and leads to damage to ancient monuments (Taj Mahal Yellowing).</p> <p>(2) Eutrophication of water bodies: Increases nitrogen intake of freshwater bodies leading to Eutrophication.</p>
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What Govt initiatives have been taken to reduce air pollution in Delhi?

1. **Cloud Seeding (Artificial Rain):** Piloted with IIT Kanpur, three rounds were conducted in 2025 to temporarily reduce airborne particulate matter, although results were mixed due to weather constraints. The key reason for limited results was **insufficient cloud moisture (only 15-20%)**, while successful cloud seeding typically requires 50% or more. High cloud bases (near 10,000 feet) also reduced effectiveness.
2. **Crop Residue Management Scheme:** Crop Residue Management (CRM) scheme which provides subsidy to farmers for buying '**Turbo Happy Seeder**', '**Super SMS attachment**', '**rotavators**' and '**superseeder**'.
3. **Commission for Air Quality Management (CAQM):** CAQM is a statutory body formed under the Commission for Air Quality Management in National Capital Region and Adjoining Areas, Act 2021. CAQM has provided a framework to tackle the problem of air pollution due to stubble burning.
4. **Initiatives to reduce Vehicular Pollution:** The **shift from BS-IV to BS-VI**, push for **Electric Vehicles (EVs)**, **Odd-even Policy** have all been implemented to reduce Vehicular pollution.
5. **Graded Response Action Plan (GRAP):** GRAP measures like shutting down thermal power plants and a ban on construction activities are implemented to curb air pollution.
6. **Dust and construction controls:** Mandatory deployment of anti-smog guns and water sprinklers at large buildings, construction sites, and hotspots; mist sprayers installed on electric poles at 13 major air pollution hotspots.

What should be the way ahead?

A start has been made to recognise the severity of air pollution on the health of the population and the economy. Delhi and Mumbai are the two financial backbones of our country. The following measures need to be undertaken to curb air pollution in Delhi and Mumbai:

1. **Increase the AQI monitoring stations:** The adequate numbers of AQI monitoring stations as mandated by the National Clean Air Programme (NCAP) must be installed. Also, **sensor based AQI monitoring units** that give hyperlocal data must be set up.
2. **Enhanced powers to the authorities to take action according to the hyperlocal data:** It will help the authorities take **pre-emptive actions** and allow **denser monitoring**. For example, if it is found that construction is taking place in a certain pocket without following norms, the authorities can identify the location and immediately penalise the violators.
3. **National Nodal Authority for Air pollution:** India needs a **nodal authority with constitutional powers** to ensure collaborative pre-emptive action on air pollution with timelines for all stakeholders.
4. **Setting up Independent commissions for management of AQI:** Independent commissions like the **Commission for Air Quality Management (CAQM) for NCR and adjoining regions**, should be set up in other major cities like Mumbai and Chennai. It will help in taking actions against the violators irrespective of the geographical region. **Regional or airshed approach** must be used to counter the geographical challenge to air pollution management as done in Los Angeles, Mexico City and many mega-urban regions in China.

5. **Stricter guidelines for industrial emissions:** SEBI's Business Responsibility and Sustainability Report (BRSR) framework can lay down tighter guidelines to ensure uniformity in the unit of reporting pollutant emissions, declaration of air pollution mitigation targets (like companies do for carbon emissions), and reporting of disaggregated emissions data. We must reduce exposure across the value chain from production to consumption to recycling of goods and delivery of services.
6. **Making 'Clean air' an investment sector:** The push for substitution of fossil fuels will increase investment opportunities in clean energy transition sector like green mobility, clean cooking. This will open up a new sector for investment and will help in reducing the air pollution simultaneously.
7. **Funds and Manpower Training to combat pollution:** The Sixteenth Finance commission should provide finance to urban local bodies for climate change and air pollution reduction interventions. The urban local bodies manpower must be properly trained and the dysfunctional State pollution Control Boards must be empowered to take punitive actions.
8. **Increased awareness and incentive for civil society:** Different stakeholders need to know why cleaning the air will benefit their livelihoods and businesses. For instance, farmers will not curb stubble burning until a viable circular economy for alternative uses of biomass emerges. We must adopt sustainable lifestyles which are in line with government's LiFE initiative.
9. **Increased use of Public transport and reduced dependence on private vehicles:** The Delhi Master Plan target of 80 per cent of motorised trips by public transport by 2020 has not been met yet. The deadline has been shifted to 2041. This deadline needs to be met by augmenting the public transport system. The private vehicles use must be disincentivized by introducing ward-wise parking management area plans and parking tax.
10. **Limit crop residue burning:** We must implement known solutions like shifting to less water-intensive crops, altering irrigation arrangements, timing, harvesting, baling practices and building a wider year-round market for straw.
11. **End-to-end construction and waste management:** It is pivotal to reducing tonnes of dust and waste released in the air and water bodies.
12. **Learnings from London, China, Singapore, Hong Kong must be incorporated:** London does not allow private vehicles in areas well-connected by public transport. China uses 'fixed number of car sales per year' in Beijing. We must improve the public transport like London, China, Singapore and Hong-Kong.

Read More- [The Indian Express](#)

UPSC Syllabus- GS 3- Conservation, Environmental Pollution and Degradation, Environmental Impact Assessment.