

7 PM COMPILATION

August, 2024

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
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Wayanad Landslide- Causes, impact and management of Landslides in India- Explained Pointwise

The **calamitous Wayanad landslide** on July 30, has wreaked havoc in Kerala and resulted in the loss of lives of more than 250 people. According to experts, it is the biggest landslide-related disaster in the state in terms of casualties. This catastrophe has **again put the spotlight** on the reports of the **Madhav Gadgil Committee** (2011) and the **K Kasturirangan-led High Level Working Group** (2013), which had **recommended** these areas to be **demarcated as Ecologically Sensitive Areas**. However, these were met with resistance and never implemented.



Created By Forum IAS

Factors behind the Wayanad Landslide

- Wayanad witnessed **140mm of rainfall**, with some areas **reporting more than 300 mm of rainfall**. This rainfall was about **five times more** than India Meteorological Department's (IMD) projections.
- Overflow in the Chaliyar river** swept more sediment downstream. This was due to the fact that heavy rains in 2020 had caused the Chaliyar to **strip swaths of its upstream areas** of plant cover. This left more rocks and humus vulnerable to being displaced.
- The heavy rainfall has saturated with moisture. The water reaches the rocks by flowing between the soil and the rock layers. This **weakens the force that binds the soil to the rocks** and triggers the movement.
- Quarrying, linear infrastructure development, and construction activities** have compromised ecosystems' ability to cope with changing natural conditions.
- Monocropping**, has resulted in the **cut down of large, native trees**, which serve to hold the topsoil to the bedrock. The replacement of these native trees with big plantation crops, such as tea and coffee having

shallow roots, has increased the vulnerability.

6. According to a study by the International Journal of Environment and Public Health, **Wayanad has lost 60 per cent of its forests between 1950 and 2018**. The erosion of the green cover has made Kerala susceptible to landslides.

7. Climate Change has been leading to gradual **warming of the Arabian Sea** leading to the **formation of a deep cloud system** over parts of the Western Ghats.

What are landslides? What is the status of India's Vulnerability to Landslides?

Landslide- It is a natural phenomenon which is **usually observed in steep mountainous regions** where large quantities of material, composed of rock, boulders, loose mud, soil and debris, are driven down the slope with force.

Types of Landslides

Landslide Classification

Types of Movement

Falls: Falls are rapid movements of rocks and boulders detached from steep slopes or cliffs along fractures, joints, and bedding planes.

Topple: It is the forward rotation of a mass of debris or rock out of a slope. The slope failure generally occurs at point near the base of the block of rock.

Slides: A slide is a downslope movement of material that occurs along a slip surface.

Rotational slide: In this slide the slide movement is roughly rotational about an axis which is parallel to the ground surface and transverse across the slide.

Translational slide: In this slide the landslide mass moves along a planar surface with rotation or backward tilting

Types of Materials

Rock: hard or firm mass.

Debris: 20% to 80% of the particles are larger than 2mm, and the remainder is less than 2mm².

Earth: material in which 80% or more of the particles are smaller than 2mm.

Soil: an aggregate of solid particles, generally of minerals and rocks.

Mud: material in which 80% or more of the particles are smaller than 0.06mm.

Types of flows

Debris flow: It is a form of rapid mass movement in which a combination of loose soil, rock, organic matter, slurry that flows downslope. They are commonly caused by intense precipitation or rapid snow melt.

Earth flow: It is down slope viscous flow of fine grained material saturated with water.

Mudflow: A mudflow is wet or viscous fluid mass of fine and coarse grained material flows rapidly along drainage channels.

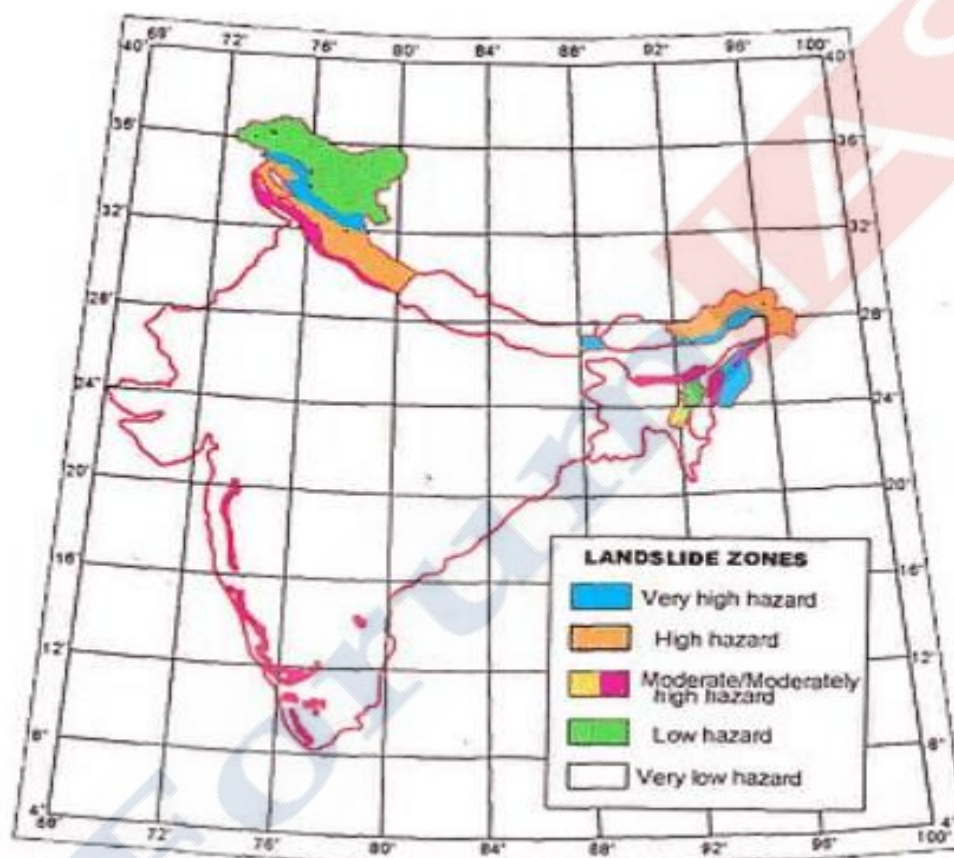
Creep: Creep is the slow, steady, downward movement of material under gravity occurs in large area.

Lateral Spreads: It is the lateral movement usually occur on very gentle slopes or flat terrain. The failure is caused by liquefaction due to earthquake.

Source- ISRO Landslide Atlas of India

Vulnerability of India to Landslides

ISRO's Landslide Atlas of India	According to ISRO's Landslide Atlas of India, India is among the top four countries with highest landslide risk . It has been estimated that loss of life per 100 km² is greater than one .
India Landslide Susceptibility Map (ILSM) by IIT Madras	India accounts for about 8 per cent of global fatalities due to landslides. 13.17 per cent of the country is susceptible to landslides, and 4.75 per cent is 'very highly susceptible'. Kerala is the most vulnerable state with over 14 per cent of its land mass in the 'very high susceptibility' category.



Source- NDMA

Recent Incidents in India- Some other incidents in India include the following- Kerala (2018), Himachal Pradesh (2018), Uttarakhand (2018), Tamenglong-Manipur (2018), and Kalikhola, Manipur (June 2017).

Read More- [National Landslide Susceptibility Map](#)

What are the causes of landslides in India?

Natural causes

1. Heavy Rainfall- The occurrence of heavy or continuous rainfall may lead to heavy landslides in the areas of steep slopes. **Water works as a lubricating agent and loosens up the material.** For ex- **The 2013 Uttarakhand Cloudburst brought immense landslides in the region.**

2. Earthquakes- The sudden shaking of earth's crust creates stress on materials resulting in their flow downwards. **For ex- Tectonically active Himalayas** enhance the probability of earthquakes, resulting in an increased vulnerability.

3. Nature of Rivers- The youthful and mighty rivers in increase the downcutting of earth on the mountain slopes. **For ex-** The **increased flow in the Chaliyar river** resulted in heavy sediment erosion, resulting in the Wayanad landslide catastrophe.

Anthropogenic causes

1. Heavy Infrastructure Development- The creation of roads, railways, dams, linear infrastructure development in the mountainous region, has resulted in increased landslides. **For ex-** **The development of Konkan Railways in western ghats** is considered a significant reason behind the frequent occurrences of the disaster in the region.

2. Mining activities- It involves removal of the surface of the earth for mineral exploration, which loosens the grip of material. **For ex-** **Iron ore, bauxite, manganese, chromite, and limestone mining** in the western ghats has increased the risks of this disaster.

3. Increased Deforestation- The cutting down of trees for agricultural and industrial activities, loosens the soil grip and makes the region more vulnerable to landslides. **For ex-** **Plantation agriculture in Western ghats** has resulted in loss of native trees and increased the disaster risk.

4. Unsustainable Tourism- The rising tourist influx in the Himalayan region and Western Ghats puts greater pressure on land, as more infrastructure and amenities are needed to accommodate them. This leads to more construction and greater landslide risks.

5. Climate change- Anthropogenic activities has accelerated the climate change events, leading to increased glacial melts and rainfall. **For ex-** **Warming of Arabian sea** has resulted in **increased rainfall in the Western Ghats region**, leading to enhanced landslides.

What are the Impacts of Landslides in India?

1. Loss of Lives- The most traumatizing impact of a landslide is the loss of precious human and animal lives. In the **recent Wayanad case**, already **more than 250 deaths** have been reported.

2. Economic Losses- These lead to enhanced economic losses as, **significant amount is spent on reconstructing the lost infrastructure, rehabilitating the masses, and providing relief support** to the impacted people.

3. Infrastructural Damage and restricted Movement- The mud, rocks, and debris moving down the slope result in infrastructural damage to houses, buildings, roads and create a **barrier on critical transportation routes**. This restricts the movement of goods and people.

4. Jeopardized Water Availability- The accumulated mass of debris results in the blockage of a river by **creating a Landslide dam**. It impairs the availability of water for nearby people.

5. Displacement and Migration- It forces communities to evacuate and migrate. This leads to **social disruption** and **psychological stress** among affected populations

What initiatives have been taken by the Government to mitigate the risks due to landslides?

National Landslide Susceptibility Mapping (NLSM)	Geological Survey of India initiated the National Landslide Susceptibility Mapping (NLSM) program in 2014 to map the landslide areas on a Macro Scale (1:50,000) . The goal is to map the 0.42 million sq. km landslide-prone areas across the country.
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National Landslide Risk Management Strategy (2019)	It addresses all the components of landslide disaster risk reduction and management, which includes – a. Hazard mapping, monitoring, and early warning system, awareness programs, b. Capacity building, training, regulations, and policies, stabilization and mitigation
National Disaster Management Authority (NDMA) Guidelines on Landslide Hazard Management (2009)	It proposes measures that should be taken to avoid or mitigate the risk posed by landslide hazards. Some of the guidelines are as follows– a. Delineating areas susceptible to landslide hazards b. Encouraging implementation of successful remediation and mitigation technologies. c. Developing institutional capacity and training for geoscientists, engineers, and planners is necessary for the effective management.
National Institute of Disaster Management (NIDM)	It is a premier institute that provides Capacity Building support to various National and State level agencies in the field of Disaster Management & Disaster Risk Reduction.

What are the challenges in implementation of measures proposed for landslide Mitigation?

- 1. Non implementation of Gadgil and Kasturirangan committee reports-** The Gadgil committee report proposed to **regulate developmental activities** in the **entire 1,60,000 sq km stretch of the Western Ghats**. K Kasturirangan report recommended **demarcation of 37 per cent of the Western Ghats as an ecologically sensitive area** (ESA) and complete ban on mining and quarrying in these protected zones. These reports have not been implemented with resistance by all states and parties across the political spectrum in the biodiverse region.
- 2. Lack of landslide mitigation plan-** Many **States vulnerable to landslides including Kerala** lack landslide mitigation plan. These maps and plans help to explain the route a landslide can take once it has been triggered.
- 3. Insufficient Monitoring Systems-** Many regions lack effective monitoring and early warning systems, which are crucial for timely evacuation and disaster preparedness. The **absence of real-time data** lead to increased casualties and damage during landslide events.
- 4. Policy and Regulatory Gaps-** **Weak enforcement of land-use regulations** and **building codes** often exacerbates vulnerability to landslides.
- 5. Low Community Awareness and Participation-** Low levels of public awareness regarding landslide risks and preparedness measures impede community involvement in disaster management.

What Should be the Way Forward?

- 1. Drawing up of Route Maps-** Route maps help in **marking out areas which should be out of bounds for settlements or any activities**. These maps also map out the routes that landslides are likely to take after they have been triggered. The route maps need to be drawn at the earliest to complement the susceptibility maps.
- 2. Proper Environment Impact Assessment-** Proper implementation of Environmental impact assessment norms must be carried out **before initiating mining or dam construction**, in the ecologically fragile mountainous regions.
- 3. Demarcation of ecologically sensitive areas in Western Ghats-** The **panel headed by Sanjay Kumar** must finalise the draft notification on ecologically sensitive areas for the western Ghats. This will help in reducing engineering projects in ecologically sensitive areas.

4. Landslide Micro-zoning procedure- There must be **adoption of landslide micro zoning procedures** for mountainous and other highly vulnerable regions. This will help the states in restoring denuded flora and soil cover.

5. Involvement of locally trained manpower- There should be involvement of locally available trained manpower to intensify the hazard reduction and public awareness programs.

Read More- [The Indian Express](#)

UPSC Syllabus- GS 3- Disaster and its Management

SC verdict allowing for Sub-Classification of SCs and STs- Explained Pointwise

The seven-judge bench of the SC headed by the Chief Justice of India, with a **6:1 ruling** has **allowed for sub-classification of SCs and STs**. The ruling has permitted the states to create sub-classifications within the SC and ST categories for the purpose of according wider protections in public employment and education. This verdict **overturns** the previous 2004 ruling in the case of **E.V. Chinnaiah vs. State of Andhra Pradesh**, which had prohibited such sub-classifications.



SC Verdict on Sub-Classification of SCs and STs

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1. Permission for Sub-Classification- The Court has ruled that states can create sub-classifications within SCs and STs to better target support for the most disadvantaged groups. **This will allow for separate quotas within the existing 15% reservation for SCs**. It is aimed at addressing varying levels of backwardness among these communities.

2. Sub-classification on an Empirical Basis- The ruling emphasizes that any **sub-classification must be based on empirical data and historical evidence** of systemic discrimination, rather than arbitrary or politically motivated reasons. The Court has stressed the need for states to substantiate their classifications with quantifiable data.

3. Extension of Creamy Layer Principle to SCs and STs- The Court has extended the '**creamy layer**' principle previously applied to Other Backward Classes (OBCs) (as **highlighted in Indra Sawhney Case**), to SCs and STs. States must identify and exclude more affluent individuals within these groups from receiving reservation benefits, ensuring that assistance reaches those who are truly disadvantaged.

4. Sub-classification decisions subject to Judicial Review- The SC has highlighted that decisions made by states regarding sub-classification are subject to judicial review to **prevent potential misuse for political gain**.

5. Generational Limit to availing reservation- The Court noted that reservation benefits should be **limited to the first generation of beneficiaries**. If any family member has already availed of these benefits and achieved a higher social status, subsequent generations may not qualify for availing reservation.

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What are the roots of the case demanding sub-classification of SCs and STs?

State Government's Efforts for Sub-classification of SCs and STs

1975	Punjab Government issued a notification that divided the 25% SC reservation into categories . A portion was specifically reserved for the Balmiki and Mazhabi Sikh communities.
2000	Andhra Pradesh Scheduled Castes (Rationalisation of Reservations) Act, 2000 provided an expansive list of Scheduled Caste communities in the state and the quota of reservation benefits provided to each of them.

SC and HC intervention and striking down of Sub-classification

E.V. Chinniah Case (2004)	The 5 Judge SC bench struck down the Andhra Pradesh Scheduled Castes (Rationalisation of Reservations) Act, 2000. The Court declared that SCs constitute a homogenous group and that sub-classification within this group was unconstitutional . This decision was based on the interpretation of Article 341 of the Constitution , which empowers the President to notify SCs. The SC suggested that any sub-classification attempt would violate the right to equality under Article 14 .
Dr. Kishan Pal v. State of Punjab (2006)	The Punjab & Haryana High Court in Dr. Kishan Pal v. State of Punjab struck down the 1975 notification.

Calls for reassessment

Over the years, various states like Punjab have argued that certain groups within the SC category were underrepresented and required additional support (**Davinder Singh v State of Punjab**). This led to calls for the Supreme Court to reassess the **E.V.Chinnaiah ruling 2004**. In 2020, a Constitution Bench acknowledged the need to revisit the 2004 decision.

Judicial Review of the E.V.Chinnaiah and New Ruling- The Supreme Court's recent ruling on August 1, 2024, by a 6-1 majority, allows states to sub-classify SCs and STs, overturning the precedent set in the E.V. Chinnaiah case. The ruling clarifies that **while Article 341 provides a framework for identifying SCs, it does not create a homogenous class devoid of internal differences.**

The Court's decision allows for a nuanced understanding of social backwardness, enabling states to implement specific measures that address the unique challenges faced by different sub-groups.

What is the Significance of the Verdict?

1. Enhanced Social Justice by targeted Reservations- The Court aims to ensure that the **most marginalized groups within the SC and ST categories receive appropriate support** by allowing sub-classification. This can lead to more effective reservation policies that address the unique challenges faced by different sub-groups, ultimately promoting **greater social equity.**

2. Constitutional Validation- The verdict asserts that **sub-classification does not violate Articles 14** (right to equality) or **Article 341** (definition of SCs) of the Constitution. The Court has clarified that **states have the constitutional authority to identify different degrees of social backwardness** and provide targeted reservations accordingly.

3. Acknowledgement of social reality- The Verdict acknowledges that the Scheduled Caste or Scheduled Tribe are very large baskets that contain social groups of different status, based on different traditional occupations. They vary in their degrees of disadvantage and are unequally placed to receive the benefits of reservation.

For ex- According to the **recently concluded caste survey of Bihar, out of every 10,000 persons, 124 Dhobis** had decent (PG or professional) higher education degrees, while this number was **45 for the Dusadh community** and **just one for the most disadvantaged Musahar community.**

4. Need for Data-Driven Policies- The Court's verdict has emphasized that **any sub-classification must be backed by quantifiable and demonstrable data**, preventing arbitrary or politically motivated decisions. This would ensure that any classifications for affirmative actions have to be empirically determined and demonstrated.

5. Precedent for Future Cases- The verdict sets a **new legal precedent for administering reservations in India.** It opens the door for states to implement sub-classification policies, potentially leading to more effective and equitable reservation strategies in the future.

[Read More- Panel submits report on sub-categorisation of OBCs after 6 years](#)

What are the Challenges in ensuring Sub-Classification?

1. Empirical Data Collection for Sub-classification- **Gathering quantifiable and demonstrable data, and conducting comprehensive surveys and studies** to collect reliable data on the socio-economic conditions of different sub-castes is a resource-intensive and time-consuming process.

2. Criteria for Sub-Classification- Determining the **specific parameters**, appropriate criteria and thresholds **to measure backwardness**, such as **educational attainment, income levels, representation in government jobs, and access to basic amenities**, is a complex task.

3. Influence of political considerations- There are concerns that sub-classification criterion can be misused for electoral gains. States can use it as a **tool of political expediency.**

4. Social Tensions- Sub-classification **might exacerbate existing social tensions** within SC/ST communities, leading to intra-community conflicts and divisions.

5. Administrative Burden- The process of creating, managing, and updating sub-categories would add a **significant administrative burden** on government agencies.

What Should be the Way Forward?

1. Consensus Building- Building consensus **among various stakeholders**, including **political parties, community leaders**, and **civil society organizations**, is essential to ensure the successful implementation of sub-classification policies.

2. Effective monitoring mechanisms and grievance redressal systems- States must put in place effective monitoring mechanisms and grievance redressal systems **to prevent leakage** and ensure that the most disadvantaged sub-groups receive adequate support.

3. Maintaining social harmony- Addressing the **concerns of other marginalized communities who may feel left out or threatened by sub-classification** is crucial to maintain social harmony and prevent conflicts.

4. Strengthening the administrative and institutional capacity of states- Strengthening the administrative and institutional capacity of states to implement sub-classification policies effectively is essential. This includes **training personnel, developing data management systems**, and **establishing dedicated agencies** to oversee the implementation process.

5. Adequate Financial resources- Adequate financial resources must be provided to states for **conducting surveys, implementing sub-classification policies**, and **monitoring their impact** is crucial for the success of this initiative

Read More- [The Indian Express](#)

UPSC Syllabus- GS 2- Indian Constitution (Fundamental Rights)

Critical Mineral Mission of India- Significance and Challenges- Explained Pointwise

India has announced a **Critical Mineral Mission** as part of **Budget 2024-25**. Through this mission, India aims to **boost the domestic output** and **recycling of critical minerals** like copper and lithium. These Minerals have strategic importance in sectors like defence, agriculture, energy, pharmaceutical, telecom. However, these minerals **face supply chain vulnerabilities**, due to their lack of availability and concentration in a few geographical locations. Hence, India has been focusing on securing the supplies of critical Minerals.

What are Critical Minerals? What is the classification criterion and identified list of critical Minerals in India?

Critical Minerals- These minerals are **essential for economic development** and **national security** as they are used vital for development of materials for defense, aerospace, nuclear, and space applications. There are **associated risk of supply chain vulnerability and disruption** with these minerals, due to their lack of availability, and concentration of existence, extraction or processing of these minerals in few geographical locations.

Factors Affecting Criticality-



Source- Ministry of Mines

Economic Importance (EI)	Supply Risk (SR)
1. Disruption Potential 2. Substitutability Index (SI) 3. GVA Multiplier Score 4. Cross-Cutting Index (CCI)	1. Governance-weighted Material Concentration 2. End-of-life Recycling Rates (EOL-RR) 3. Import Reliance (IR) and SelfSufficiency (SS) 4. Substitutability Index (SR)

Critical Minerals Identified in India- The Government of India identified 30 minerals as Critical in July 2023.

Antimony	Lithium	Strontium
Beryllium	Molybdenum	Tantalum
Bismuth	Niobium	Tellurium
Cobalt	Nickel	Tin
Copper	PGE	Titanium
Gallium	Phosphorous	Tungsten
Germanium	Potash	Vanadium
Graphite	REE	Zirconium
Hafnium	Rhenium	Selenium
Indium	Silicon	Cadmium

What is the Importance of Critical Minerals for India?

1. Push to India's Economic Development- These Minerals give a push to India's economic development as industries such as **high-tech electronics, telecommunications, transport,** and **defense** rely heavily on these minerals. Their growth can lead to job creation, income generation, and innovation in these sectors. **For ex-India's push to become semiconductor manufacturing hub rests on the availability of these minerals.**

2. Energy transition towards Net-zero Emissions- These minerals are the foundation of modern technologies like **solar panels, wind turbines** and **advanced batteries,** which will help in energy transition and would give a push to India's goal of **net-zero emission by 2070.**

3. Competitive Value chain establishment in India- The discovery of critical mineral wealth and identification of areas of their potential use in advanced technologies will help in establishing competitive value chain in India. This would help in attracting **foreign direct investments** from countries like UK, USA as part of their **China+1 strategy.**

4. National Security- These minerals are **vital for defense, aerospace, nuclear,** and **space applications** due to their usage in development of high-quality and reliable materials capable of withstanding extreme conditions and performing complex functions. These would in turn help in bolstering India's national security.

5. Reducing India's import Bill- Currently most of the critical minerals are imported in India. The exploration and increased production of these minerals would help in **reducing India's import burden** and Current Account Deficit.

Sl. No.	Critical Mineral	Percentage (2020)	Major Import Sources (2020)
1.	Lithium	100%	Chile, Russia, China, Ireland, Belgium
2.	Cobalt	100%	China, Belgium, Netherlands, US, Japan
3.	Nickel	100%	Sweden, China, Indonesia, Japan, Philippines
4.	Vanadium	100%	Kuwait, Germany, South Africa, Brazil, Thailand
5.	Niobium	100%	Brazil, Australia, Canada, South Africa, Indonesia
6.	Germanium	100%	China, South Africa, Australia, France, US
7.	Rhenium	100%	Russia, UK, Netherlands, South Africa, China
8.	Beryllium	100%	Russia, UK, Netherlands, South Africa, China
9.	Tantalum	100%	Australia, Indonesia, South Africa, Malaysia, US
10.	Strontium	100%	China, US, Russia, Estonia, Slovenia
11.	Zirconium(zircon)	80%	Australia, Indonesia, South Africa, Malaysia, US
12.	Graphite(natural)	60%	China, Madagascar, Mozambique, Vietnam, Tanzania
13.	Manganese	50%	South Africa, Gabon, Australia, Brazil, China
14.	Chromium	2.5%	South Africa, Mozambique, Oman, Switzerland, Turkey
15.	Silicon	<1%	China, Malaysia, Norway, Bhutan, Netherlands

Table.1 The net import reliance for critical minerals of India (2020) (Source: A report on 'Unlocking Australia-India Critical Minerals Partnership Potential' by Australian Trade and Investment Commission, July 2021)

Source- Ministry of Mines

What are the Challenges with Critical Minerals?

1. Geopolitical and oligopolistic Monopoly- The concentration of critical minerals in few countries, has led to geopolitical monopoly with only a few countries dominating these mineral resources. This leads to **oligopolistic** (domination by a few large firms) markets. **For ex- Australia controls 55% of lithium reserves, and China has 60% of rare earths.**

2. China's dominance in the processing and refining sector- China is a central player in the global critical mineral supply chains, particularly in processing and refining. It **accounts for about 60% of worldwide production and 85% of processing capacity.** China's dominance leads to political leverage over other countries.

3. Geopolitical Risks- The **geographical concentration of these minerals** makes them vulnerable to geopolitical risks. Geopolitical tensions, conflicts, trade disputes, or sudden policy changes in those regions can impact their supply. **For ex- The civil war in Democratic Republic of the Congo,** has affected the global supply chain of cobalt, as 70% of the world's reserves of cobalt are located in DRC.

4. Resource Nationalism- The geographical concentration of these minerals has led to resource conflicts. This has increased resource nationalism, and trade fragmentation. **For ex- Rising resource nationalism in Africa.**

5. Price Volatility- Unlike oil, most critical materials are not widely traded on exchanges, and this limits opportunities to hedge against price volatility. Further, **insufficient data on consumption, production, and trade of minerals** causes uncertainty, price volatility and delays in investments.

6. Rising Import Bill- Between FY22 and FY23, there has been a **34% rise in imports of critical minerals**, totaling nearly Rs. 91,000 crore. India's heavy reliance on imports for these minerals, poses a risk to its industrial and energy security.

7. Environmental Concerns- Mining activities of these can lead to biodiversity loss, land use change, water depletion and pollution, waste contamination, and air pollution. **For ex- Lithium mining in the fragile landscapes of the Chilean Atacama desert is water-intensive.**

8. Long Gestation Period for Alternatives- Development of alternative sources and processing capabilities of critical minerals, like India's plans with Australia, can take over 15 years, delaying self-reliance.

Read More- [Critical Minerals Summit](#)

What initiatives have been taken by the Government for Critical minerals in India?

Amendment to Mines and Minerals (Development and Regulation) Act, 1957	Through the MMDR Amendment Act, 2023, the Central Government is empowered to auction blocks of 30 critical minerals. The amendment permits private sector entry through auctions.
FDI liberalisation	In 2019, India has allowed 100% foreign direct investment . Certain minerals which were previously classified as atomic have been reclassified, facilitating private-sector mining.
International Collaboration	India joined the Mineral Security Partnership , which is a US led initiative involving 13 countries and the EU. Khanij Bidesh India is assisting Argentina in lithium exploration and discussing lithium and cobalt blocks in Australia.
Institutional Initiatives	The Geological Survey of India has initiated over 250 projects to explore deep-seated critical minerals. India has launched startup challenges to develop advanced processing technologies.
Budgetary Support 2024	Customs Duty Removal- Customs duties on 25 critical minerals , such as lithium, nickel, copper, and cobalt, have been removed to enhance domestic manufacturing of advanced technologies like electric vehicles (EVs) and energy storage systems. Concessional Customs Duty Extension- The concessional customs duty of 5% on lithium-ion cells has been extended until March 2026.
Critical Mineral Mission	In the Budget 2024, Critical Mineral Mission has been announced to give a boost to India's critical minerals Sector .

Significance of Critical Mineral Mission

1. Promotion of domestic production and recycling of critical minerals by increasing the capacities of India in terms of refining and processing
2. Identification of minerals which are critical, which will help the country to plan for the acquisition and

preservation of such mineral assets taking into account the long term need of the country.

3. Reduction of India's import dependency as India is 100% import dependent for certain elements.
4. Expedited exploration, overseas mineral acquisition, resource efficiency, recycling of minerals, and finding substitutes through suitable R&D.



Source- Ministry of Mines

What Should be the Way Forward?

1. Implementation of the recommendations of expert committee on critical Minerals- Setting up of the **Centre of Excellence for Critical Minerals (CECM)** as a dedicated wing in the Ministry of Mines. This can be on the lines of **CSIRO which is an Australian government corporate entity**. The centre of excellence can collaborate with international agencies or Khanij Bidesh India Ltd (KABIL) for the strategic acquisition of foreign assets of these minerals.

2. Push for Expansion of Mineral Security Partnership (MSP)- Along with India, more countries in the Global South can be part of the alliance, especially critical mineral-rich African countries. The **MSP can become an international platform** that reports on the status and future of critical mineral markets.

3. Encourage FDI in Domestic Mining- Rising foreign direct investment (FDI) will not just support businesses like battery and EV manufacturing. It will also bring the expertise of international mining firms to aid in exploring critical minerals for the country's benefit.

4. Investment in Beneficiation and Processing Facilities- India should **invest in beneficiation and processing facilities in Africa** to promote local economies and sustainable relationships.

5. Path to Global Leadership- India can emulate **Indonesia's success in nickel** to become a global leader in these minerals, utilizing access to both domestic and international raw materials.

6. Alignment of Mineral Incentives- The production-linked incentive scheme for minerals **should align with global aspirations**, creating employment opportunities.

Read More- [The Hindu Businessline](#)

UPSC Syllabus- GS Paper-3- Infrastructure: Energy, Ports, Roads, Airports, Railways etc.

5 years after abrogation of Article 370- Explained Pointwise

August 5, 2024, marks the 5 years after the **abrogation of Article 370**. On August 5, 2019, Prime Minister Narendra Modi announced the abrogation of Article 370 and the **end of special status for the state of Jammu and Kashmir**. Subsequently, Parliament used its powers under Article 3 of the Constitution, for the first time, to withdraw statehood and create two Union Territories. The Supreme Court in a 5-0 unanimous ruling upheld the Centre's abrogation of Article 370 of the Constitution.

Since, 5 years have passed after the abrogation of Art 370, there is a need of introspection of the achievement of stated objectives of removal of Art 370 and the challenges ahead.

What was Article 370 of the constitution? How was it removed?

Article 370- Article 370, was added to the Indian constitution, as a '**temporary provision**', on October 17, 1949. It permitted the state of J&K to draft its own Constitution. The **Constituent Assembly of Jammu & Kashmir** was **empowered to recommend** which **articles of the Indian Constitution** should **apply to the state**. It restricted the Indian Parliament's legislative powers in the state.

Article 35A- Clause 3 of the **Article 370** gave the President of India the power to **amend its provisions and scope**. Article 35A stemmed from Article 370 and was introduced through a **Presidential Order in 1954**, on the recommendation of the J&K Constituent Assembly. Article 35A empowered the Jammu & Kashmir legislature to define the permanent residents of the state, and their special rights and privileges.

Presidential Proclamation Abrogating Article 370- On 5th August 2019, President of India in the exercise of the powers conferred by Clause (1) of Article 370 of the Constitution had issued the **Constitution (Application to Jammu and Kashmir) Order, 2019**. The laws of the Parliament will now be applicable to the state of Jammu and Kashmir.

What was the rationale for the abrogation of Article 370?

1. Promotion of National Integration- Article 370 **allowed a separate constitution, flag and powers** to Jammu and Kashmir, which created a **sense of separate identity among the people of the state**. This was used to misguide youth and created a demand of separatism among them. A rationale was provided that the abrogation of Article 370 was a means to promote national integration.

2. Aid in the fight against Terrorism- Owing to cross border terrorism, around **42 thousand people** had lost lives in the state of Jammu and Kashmir. The special status accorded to Jammu and Kashmir, due to Article 370, was considered an **impediment in fight against terrorism**. It was reasoned that abrogation of Article 370 allowed for the application of stringent anti-terror laws like UAPA.

3. Reduction of Corruption and graft- Article 370 resulted in poor anti-graft architecture in the state of Jammu and Kashmir. Anti-corruption agencies could not enter the state, which resulted in massive corruption,

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money laundering and **hawala transactions**. It was reasoned that abrogation of Article 370, allowed for the stringent application of the **PMLA** and **FEMA Act**.

4. Promotion of economic development- Due to the application of Article 370, the land in the state could only be sold and bought by the permanent residents of the state. As a result, large businesses houses did not invest in the region owing to land concerns. It was reasoned that repeal of Article 370, would **allow greater investment in the state of J&K**.

5. Effective implementation of affirmative policies- Various affirmative legislations such as Right to Education, Right to Information were not available to the citizens of Jammu and Kashmir. Also, the **reservations benefits**, to **OBCs, SCs, STs** were not available to the marginalized sections of the state. It was reasoned that **abrogation of Article 370** would **allow for effective implementation** of affirmative policies.

What have been the positive developments post abrogation of Article 370?

1. Improvement in Governance- There have been substantial gains on the governance front, with the **improvement in the last-mile delivery of services, digitisation of 1000 public utilities**, near completion of major projects in the PM's development package.

2. Improved economic situation of J&K- The abrogation of Article 370 and the improved governance has helped in **attracting Rs 6,000-crore worth of investments**. The number of tourists visiting the UT went up from 3.4 million in 2020 to 21.1 million in 2023.

3. Increased trust in the Political and electoral System- Despite the detention of several elected leaders in August 2019 during abrogation of Article 370, the **people of J&K** have shown their faith in the ballot. The 2024 general election was an incident-free poll, with **voter turnout at 58.6 percent**, the highest in 35 years.

4. Absence of a counter-hegemonic view on Kashmir- There has been an emergence of consensus across political parties on the abrogation of Article 370. The **customary call for boycott, bandhs, civil unrest and stone pelting** incidents, have stopped since the abrogation of Article 370 in Kashmir.

5. Social Stability- With the decline in violence and the restoration of normalcy, **public and social life in the Jammu and Kashmir region has returned to a more stable state**. Events promoting peace and development are now being held in areas that were previously considered no-go zones.

What are the prevailing challenges after the abrogation of Article 370?

1. Changing theater and character of conflict- The infiltrators from across the border have become more active in the Jammu sector. Pakistan, its partnership with China and its sponsorship of terror has increased in the region. **For ex- Increased terror attacks on civilians and army personnel in Jammu region**.

2. Erosion of social capital- The constitutional amendments, followed by legislative changes, executive fiats and administrative orders have eroded the social capital of Kashmir. There has been **concentration of power in the region**.

3. Political Challenges- The abrogation has marginalized traditional political entities, causing a vacuum in local governance and representation. Mainstream political parties, such as the National Conference and the Peoples Democratic Party, have struggled to regain their footing in the Jammu and Kashmir region.

4. Social and Human Rights Concerns- Post-abrogation, there have been **widespread reports of human rights violations**, including restrictions on civil liberties, internet blackouts, and the detention of political leaders and activists.

5. Diplomatic Challenges- Internationally, the abrogation of Article 370 has complicated India's diplomatic relations, particularly with Pakistan.

Read more- [SC Verdict on Article 370- Explained Pointwise+ Infographic](#)

What Should be the Way Forward?

1. Restoration of Political Engagement- There is a need to reintegrate local political parties into the governance process. This can be achieved by facilitating dialogue between the central government and regional political leaders to address their grievances. **For ex- Regular meeting between LG and heads of political parties.**

2. Enhancing Security and Community Trust- Building trust between security forces and local communities is necessary for restoration of normalcy in J&K. Initiatives that **promote community policing** can help in reducing tensions and fostering a cooperative environment.

3. Cultural and Educational Programs- Initiatives that promote cultural exchange and education can help bridge divides between different communities within J&K. This includes **support for local arts, crafts, and educational institutions** that foster a sense of unity.

4. Addressing Human Rights Concerns- The government should be transparent in its actions and responsive to the concerns of the local population regarding security measures and civil rights.

Read More- [The Indian Express](#)

UPSC Syllabus- GS 2- Indian Constitution—Historical Underpinnings, Evolution, Features, Amendments, Significant Provisions and Basic Structure.

Sheikh Hasina's Exit and India Bangladesh Relations- Explained Pointwise

In a shocking turn of events, **Sheikh Hasina resigned as the Prime Minister of Bangladesh** and has left the country. Sheikh Hasina's exit brought an abrupt end to her 15-year reign. The old order in Bangladesh with Sheikh Hasina at the helm has changed irreversibly, and India will have to adjust to the change. The **Political vacuum and ouster of Sheikh Hasina** would have serious implications for India-Bangladesh Relations.

Reasons Behind Sheikh Hasina's Exit

1. Peaceful Student demonstration evolving into a nationwide movement- The peaceful student protest against the **freedom fighter reservation of 30% in civil services**, galvanized into a nationwide movement due to Government's heavy-handed approach. The attack on students by Awami League's student wing, **Bangladesh Chhatra League**, imposition of a **strict curfew with a 'shoot-on-sight'** order and labelling the demonstrators as 'Razakars' (a term associated with collaborators during the 1971 war) further inflamed tensions.

2. Slowing down of economic Growth- Bangladesh made rapid economic progress under Sheikh Hasina's regime. The country's per capita income tripled in a decade, with the World Bank estimating that over 25 million people were lifted out of poverty in the last 20 years. However, the pandemic **in 2020** and **a slowing global economy**, thereafter, hit the garment industry badly. This increased unemployment, inflation in the economy and discontent of Bangladeshi Population.

3. Eroding democratic values- The Parliamentary elections in **2014, 2018, and 2024** were controversial and non-participative as they were marred by **low turnout, violence, and boycotts by opposition parties.**

4. Reliance on Hard Power to maintain Control- Hasina's government increasingly relied on hard power to maintain control. This created a climate of fear and repression. **For ex- The Digital Security Act 2018,**

became a potent weapon for the government and ruling party activists to silence critics and stifle freedom of online expression.

5. Increasing economic inequality- The proliferation of Bank scams and an expanding list of defaulters, coupled with rampant corruption, fuelled public discontent despite the overall economic progress. **For ex-** Companies like **CLC Power**, **Western Marine Shipyard**, and **Remex Footwear** topped the list of defaulters, with bad loans ranging from 965 crore to 1,649 crore Bangladeshi Taka.

How did India- Bangladesh Relations prosper Under Sheikh Hasina's Regime?

Sheikh Hasina's tenure has fostered a healthy relationship between New Delhi and Dhaka. The India-Bangladesh relations deepened during her 15 years in power.

1. Eradication of anti-India Terror Groups- The anti-India terror groups and their benefactor, the **Jamaat-e-Islami Bangladesh**, which operated out of safe havens in Bangladesh during the BNP-Jamaat rule in 2001-06 were eradicated after Sheikh Hasina's return to power.

2. Increase in Bilateral Trade- India-Bangladesh bilateral trade relations deepened during Sheikh Hasina's regime. **India-Bangladesh bilateral trade in FY 2023-24 amounts to \$13 billion**, with Bangladesh being India's biggest trade partner in the subcontinent, and India being Bangladesh's second-biggest partner in Asia after China. India provided **duty-free quota access to Bangladesh** on all tariff lines, except tobacco and alcohol, under **South Asian Free Trade Area (SAFTA)** since 2011.

3. Increased Connectivity projects- India and Bangladesh developed a slew of infrastructure and connectivity projects during the Sheikh Hasina's regime. Some of the completed ones are-

a. Inauguration of the **Akhaura-Agartala cross-border rail link** and **Khulna-Mongla Port rail line** in November 2023.

b. Five operational bus routes between India and Bangladesh, including connections from Kolkata, Agartala and Guwahati to Dhaka.

c. Agreement for the usage of the **Chittagong** and **Mongla ports** to ease the movement of cargo between mainland India and the Northeast.

d. India's extension of **three lines of credit to Bangladesh** since 2016 amounting to **\$8 billion** for the development of road, rail, shipping and port infrastructure.

4. Discussions on FTA- India and Bangladesh had begun negotiations for a free trade agreement which would be beneficial for both the countries under Sheikh Hasina's regime. An FTA would reduce or eliminate customs duties on goods traded between India and Bangladesh, and ease norms to help promote further trade and investments.

5. Land Boundary Agreement (2015)- India and Bangladesh **swapped the disputed islands** and allowed the **inhabitants to choose their country of residence**. This solved a major long-standing dispute between India and Bangladesh.

6. Energy cooperation- The energy cooperation between India and Bangladesh deepened during Sheikh Hasina's regime. Bangladesh nearly imports 2,000 megawatts of electricity from India. The **India-Bangladesh Friendship Pipeline**, connecting Siliguri in West Bengal and Parbatipur in Bangladesh, will transport **one million Metric Tonnes Per Annum (MMTPA)** of High-Speed Diesel to Bangladesh.

7. Defence Cooperation- India- Bangladesh border of 4096.7 km is the longest land boundary that India shares with any of its neighbours. India and Bangladesh conduct Joint Exercises like **Exercise Sampriti** (Army) and **Exercise Bongosagar** (Navy).

8. Tourism sector- Bangladeshis make up a large portion of tourists in India. In 2017, the **number of tourists from Bangladesh outnumbered all the tourists arriving from Western Europe**.

9. Medical Cooperation- Bangladesh accounts for more than **35% of India's international medical patients** and contributes to more than **50% of India's revenue from medical tourism**.

What is the significance of Bangladesh for India?

1. Geo-strategic- Bangladesh holds significant geostrategic importance for India as India's eastern neighbour. Bangladesh provides India with **access to the Bay of Bengal** and an **important route for trade and connectivity** with Southeast Asia.

2. Geo-political- A stable and friendly Bangladesh is crucial for India's security. Geo-political cooperation on issues such as **counter-terrorism** and **border security** is vital for maintaining peace in the South Asian region. Support of Bangladesh is crucial in India's bid for **UNSC permanent membership**.

3. Economic- Bangladesh is a critical economy for **India's exports and bilateral trade**. Deepening of India-Bangladesh economic relationship is crucial for India achieving its goal under the new foreign trade policy and of becoming a \$5 trillion economy.

4. Cultural and civilisational- Bangladesh has large number of Hindu Bengali population and has large number of religious-cultural sites associated with India such as **Ranir Bunglow Temple, Bhoj Vihara**.

5. International cooperation- Active cooperation between India and Bangladesh is crucial to success of regional forums such as the **BIMSTEC** (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation), **SAARC** (South Asian Association for Regional Cooperation) and **COPs to UNFCCC**.

What challenges does the exit of Sheikh Hasina create in the India-Bangladesh Relations?

1. Resurfacing of security challenges- There are risks of emergence of security challenges by the anti-India groups as encountered during the earlier BNP-Jamaat years. With the continuing tensions on the border with Pakistan, Indian Army's long standoff with the PLA in eastern Ladakh, this can create a security-nightmare for India.

2. Threat to India's connectivity with the North-east- A disruption in Indo-Bangladesh ties **can restrict India's access to the Northeast**. This region's connection to mainland India will only remain through the narrow "Chicken's Neck". With the Myanmar border remaining extremely volatile, the source of unrest in India's Northeast will increase.

3. Jeopardized the Bilateral trade and FTA- Sheikh Hasina's exit could jeopardize the growing bilateral trade ties between India and Bangladesh. There are also chances of stagnation of the potential free trade agreement (FTA) between the two countries.

4. Deterioration of people-people ties- There are real risk of blowback from the Bangladeshi people and the new power centres in Dhaka- some of whom will carry past grudges against India.

5. Geopolitical challenges- Pakistan and China will see the political change in Bangladesh as an **opportunity to challenge India's presence in the country** and try to tar it with a pro-Hasina brush.

What are the other Challenges in India-Bangladesh Relations?

1. Sharing of Transboundary River Waters- India and Bangladesh share 54 common rivers, but only two transboundary river water sharing treaties have been signed, so far- Ganga Waters Treaty and The Kushiya River Treaty. **For Ex-** Major point of contention is the **Teesta river water dispute**. Bangladesh seeks equitable distribution of Teesta waters, which has not been agreed by India and its state of West Bengal.

2. Deportation of Rohingyas- India and Bangladesh have mutual but conflicting interests in **deportation of Rohingyas to mainland Myanmar**. India seeks to give primacy to deportation from its mainland first and then later facilitate deportation from Bangladesh to Myanmar.

3. Cross-Border terrorism and infiltration- Cross-border terrorism and infiltration through the Bangladesh border have **raised additional threats to internal security of India**. **Armed Dacoity** in border districts, **fake money transfer, cattle smuggling** and **prostitution** have also raised internal security concerns in India.

4. Drug Smuggling & Trafficking- According to **2007 International Narcotics Control Board (INCB) report**, the drugs trafficking through India from Bangladesh, remains a prime transit point of trafficking heroin from South Asia to Europe.

5. Growing Chinese Influence in Bangladesh- Bangladesh is an **active partner** in the Belt and Road Initiative (BRI). China has made substantial investments in Bangladeshi infrastructure by building **12 highways, 21 bridges** and **27 power and energy projects**. China's increasing involvement with Bangladesh potentially undermines India's regional standing and impede its strategic aspirations.

6. Attacks on minorities across both the borders- The ethnic attacks on **Bangla-speaking Hindus** in Bangladesh and the **attacks on Bangladeshi's in India** have strained the India-Bangladesh P2P and cultural relation.

What Should be India's approach to deal with the Bangladesh Crisis?

1. Support to popular expression- India as a vibrant multi-party democracy, should be seen as **supporting the expression of popular will** in a sensitive neighbouring country. **For ex- India's support to people's movement in Nepal in 2006** against the dictatorial monarchical rule and restoration of multi-party democracy.

2. Expression of readiness to expand the bilateral ties- India should express its readiness to expand the bilateral economic engagement with a successor government. The **temptation to brand** the ongoing political change as **anti-India** or **anti-Hindu** should be avoided.

3. Cautiounness and Discreteness- India should be cautious and discreet in its reactions. India should keep the door open for the continuance of close and mutually beneficial ties, as **India has adopted in the case of hostile regime in Maldives under Mohamed Muizzu**.

4. Establishment of Joint Task Forces and Smart Border Management- There is a need to **establish joint task forces comprising law enforcement agencies** from both countries to **effectively combat cross-border drug smuggling, human trafficking** and Illegal immigration.

5. Establishment Digital Connectivity Corridor- There is a need to establish a **digital connectivity corridor between the two countries**, focusing on high-speed internet connectivity, digital services, and e-commerce. This can create new avenues for trade, collaboration, and technological exchange.

6. Early conclusion of India-Bangladesh Free Trade Agreement (FTA)- Bangladesh is set to lose its Least Developed Country (LDC) status after 2026, thereby losing its **duty-free and quota-free market access in India**. Hence India finalise a Free Trade Agreement (FTA) with Bangladesh at the earliest. India must also ensure that the **FTA is not misused by China to dump goods in India through RCEP agreement** (Bangladesh is also a member of RCEP agreement).

The resignation of Sheikh Hasina serves as a lesson that resonates not only in Bangladesh but across the globe, highlighting the delicate balance between socio-economic progress and democratic values, that matter no less to people for whom these have never been mutually exclusive.

Read More- [The Indian Express](#)

UPSC Syllabus- GS 2- India and its neighbourhood Relations

Disaster Management Act 2005- Significance and Challenges- Explained Pointwise

Recently, the Government of India introduced a bill proposing **several amendments to the Disaster Management Act 2005**. These amendments to the act mainly aim at **improving the operational efficiencies** in responding to a natural disaster. Though the Bill seeks to significantly expand the role and responsibilities of the National Disaster Management Authority (NDMA), however, it misses the opportunity to upgrade and strengthen the institutional status of NDMA.

Important Changes introduced in the Disaster Management (Amendment) Bill 2024

Establishment of Urban Disaster Management Authorities	The amendment Bill seeks to establish an Urban Disaster Management Authority headed by the Municipal commissioner for large metropolitan cities, which often comprise many districts. This can help in having a unified and coordinated approach towards city-level disasters such as urban flooding.
Mandatory for the States to raise SDRF	The Disaster Management Act 2005, did not make it mandatory for the states to raise State Disaster Response Force (SDRF) . The size and capacity of the SDRFs in the states vary significantly. The Bill proposes to make it mandatory for every state to raise and maintain an SDRF.
Legal Status to National Crisis Management Committee (NCMC)	The amendment Bill gives legal status to the NCMC . It makes NCMC the nodal body to deal with disasters with 'serious or national ramifications.'
Enhanced role of NDMA	The Bill proposes to significantly expand the role and responsibilities of the NDMA. It will take stock of the entire range of disaster risks to the country, including risks from emerging disasters .
Shift of responsibilities in the preparation of Disaster Plans	The National Disaster Management Authority (NDMA) and State Disaster Management Authorities will be responsible for preparation of disaster plans at the national and state levels. Earlier, the disaster management plans were prepared by the National Executive Committee and State Executive Committees.
Creation of Disaster Databases	The NDMA will be required to create and maintain a national disaster database with information on the assessment of the disaster, fund allocation, expenditure, and preparedness and mitigation plans . The SDMA's will also need to create state-level disaster databases .
Compensations	The Bill proposes that the NDMA should recommend guidelines for minimum standards of relief to be provided to people affected by disasters. This includes a recommendation on compensation amounts in case of loss of lives, damage to homes and property, and loss of livelihoods .
Clarified definition of Disasters	The Bill clarifies that the definition of Disasters does not include man-made disasters caused due to law-and-order situation. For ex- Loss of lives, suffering, or property damage in a riot would not fall in the disaster.

What is the Disaster Management Act, 2005? What is the objective of the Act?

The Disaster Management Act, 2005 was enacted in India to provide a **comprehensive framework** for **disaster management** across the country. The Act encompasses **11 chapters** and **79 sections**, focusing on effective disaster management, risk reduction, and rehabilitation efforts.

Objectives of the Disaster Management Act 2005

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a. Disaster Management Policies- The Act seeks to formulate and execute disaster management policies.

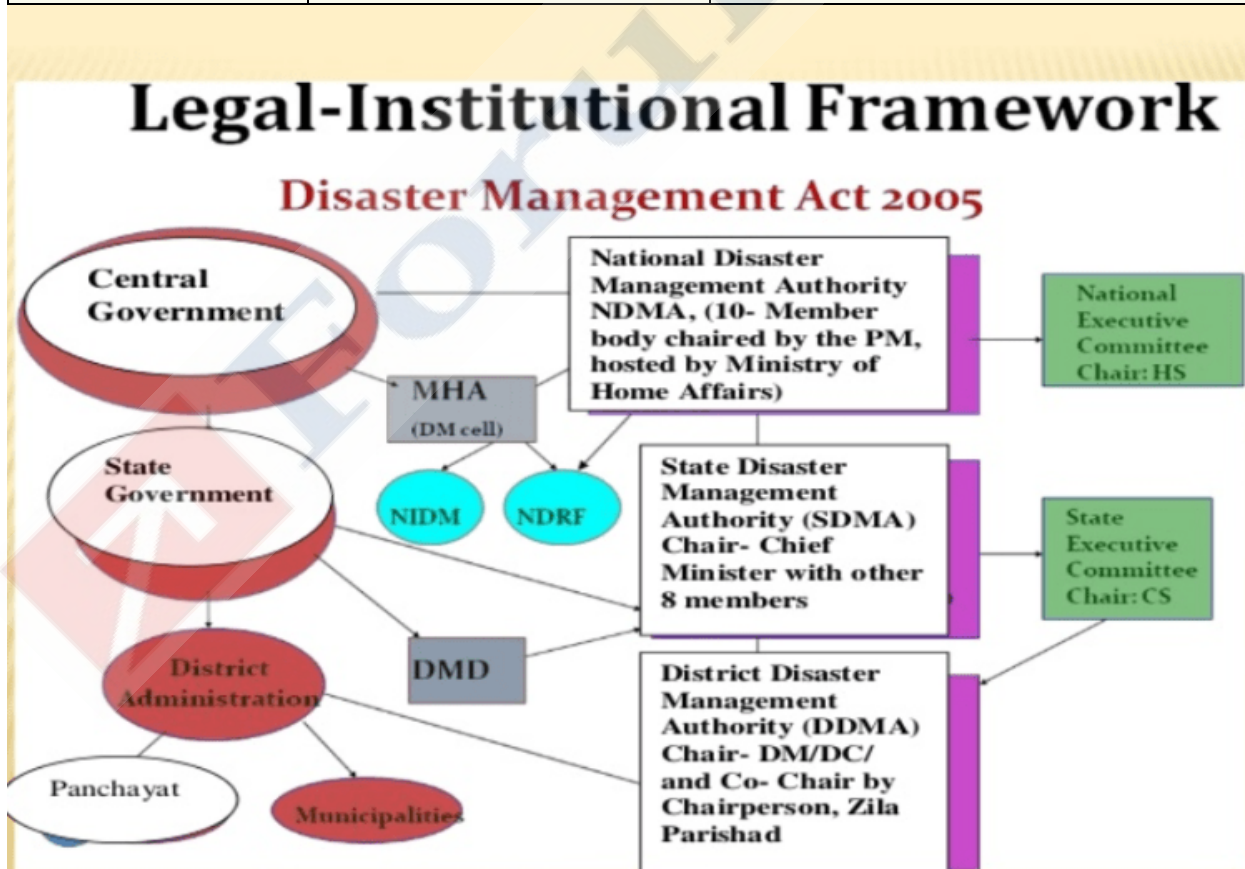
b. Disaster prevention and Mitigation- The act seeks to provide necessary measures for disaster prevention, mitigation, by enhancing preparedness and capacity building for the anticipated forthcoming calamities.

c. Disaster Relief- The Act seeks to provide financial aid and assistance to the disaster-affected state and people.

Legal-Institutional Framework of the DM Act 2005

Institutions	Role	Composition
First Tier		
National Disaster Management Authority (NDMA) (Section 3)	Act as the central body for disaster management policies, plans, and guidelines (Section 6)	Chairperson- Prime Minister Members- Ministers of State for Home Affairs, Agriculture, Atomic Energy, Science & Technology, and other relevant ministries Vice-Chairperson and other members- As nominated by the Chairperson
National Executive Committee (NEC)(Section 8)	Assist the NDMA in performing its functions and ensure compliance with the directions.	Chairperson- Home Secretary Members- Secretaries to the Government of India in various departments, Chief of the Integrated Defense Staff of the Chiefs of Staff Committee
National Institute of Disaster Management (NIDM) (Section 42)	Training, research, and capacity-building institution.	Director- Appointed by the Central Govt. Members- Experts and professionals in disaster management and related fields
National Disaster Response Force (NDRF) (Section 44)	Special response force for disaster situations	Control- Director-General appointed by the Central Government Composition- Various battalions from Central Armed Police Forces
Second Tier		
State Disaster Management Authority (SDMA) (Section 14)	Lay down the state disaster management plan and policies	Chairperson- Chief Minister Members- Ministers nominated by the Chief Minister, including the Minister for Disaster Management

<p>State Executive Committee (SEC) (Section 20)</p>	<p>Ensure that the state's disaster management plan is implemented with coordination and monitoring.</p>	<p>Chairperson- The state's chief secretary Members- Department secretaries, as determined by the state government.</p>
<p>Third Tier</p>		
<p>District Disaster Management Authority (DDMA) (Section 25)</p>	<p>Organize, plan, and carry out disaster management initiatives at the district level.</p>	<p>Chairperson- District Magistrate Co-Chairperson- Elected representative of the local authority Members- Include the Chief Medical Officer, Superintendent of Police, and additional district-level personnel nominated by the state government.</p>
<p>Local Authorities (Section 41)</p>	<p>Execute disaster management procedures in compliance with district and state plans.</p>	<p>Composition- Consists of town planning authorities, municipalities, district and cantonment boards, Panchayati Raj establishments, and other organizations in charge of urban development and planning.</p>



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Funding Framework Provided by the Disaster Management Act 2005

The funding framework of the Disaster Management Act (DMA) 2005 in India is primarily structured around two key financial instruments- the **National Disaster Response Fund (NDRF)** and the **State Disaster Response Fund (SDRF)**.

National Disaster Response Fund (NDRF)	The NDRF is established to provide timely financial assistance for immediate relief and rehabilitation during disasters. The NDRF is funded by the central government , and its utilization is governed by guidelines issued by the National Disaster Management Authority (NDMA) .
State Disaster Response Fund (SDRF)	The SDRF operates at the state level, complementing the NDRF. Each state government is required to establish its own SDRF to address local disaster management needs. The SDRF is funded through contributions from both the central and state governments , with the central government typically providing a significant portion of the funding.

What is the Significance of the Disaster Management Act 2005?

- 1. Establishment of Legal institutional Framework-** The Act has led to the creation of the **NDMA, SDMA**s at the state level, a National Disaster Response Force (**NDRF**), and a National Institute of Disaster Management (**NIDM**). These institutions help in mitigating disasters by promoting disaster-related research, training, awareness, and capacity building.
- 2. Disaster Mitigation-** The institutional framework provided by the Disaster Management Act, has **served India well in dealing with natural disasters**. Over the years, it has helped in saving thousands of lives, and has provided **relief, rescue and rehabilitation services**.
- 3. Emphasis on Disaster Risk Reduction-** The Act emphasizes the importance of disaster risk reduction by promoting the **integration of disaster management into development planning processes**. **For ex- National Disaster Management Policy in 2009 and National Disaster Management Plan in 2016**, stress on the importance of Disaster Risk reduction which is the main aim of the Act.
- 4. Facilitation of Resource Allocation-** The Act provides for the establishment of the National Disaster Response Fund (**NDRF**) and State Disaster Response Funds (**SDRFs**) to ensure **timely financial assistance** for disaster response and relief operations.
- 5. Promotion of Community Participation-** The Act recognizes the importance of community participation in disaster management by **emphasizing the role of local authorities and community groups** in disaster response and recovery efforts.

What are the Challenges with the Disaster Management Act in India?

Institutional Challenges

- 1. Absence of vice-chairperson of NDMA-** The post of Vice chairman of NDMA has been **vacant for about a decade**. The absence of Vice-chairperson has **deprived NDMA of the leadership** and the **necessary political heft to deal with states** and other Government agencies.
- 2. Lack of administrative financial powers-** NDMA **lacks administrative financial powers**, and routing of every small decision through the Home Ministry is an inefficient and time-consuming process.
- 3. Staff-Shortage in NDMA-** The NDMA is severely short-staffed at the top. There are only three functioning members in NDMA. Earlier, the NDMA would have **six to seven members**, with each in charge of a specific type of disaster.

4. NDMA's Invisibility during major crises- The Disaster Management Act has been criticised for its inadequate project planning and execution. National Disaster Management Authority (NDMA) was **nearly invisible during major crises** like the **COVID-19 pandemic**.

Functional Challenges

1. Ineffective integration and prioritisation of disaster risk reduction (DRR) efforts- Disaster risk reduction (DRR) efforts are **critical for mitigating the impact of disasters**. Comparative studies have highlighted the lack of integration of disaster risk reduction (DRR) efforts with the developmental works.

2. Ineffectiveness in addressing Public Health Crises- The Act lacks functional provisions to comprehensively address the relief, rescue and rehabilitation in cases of **epidemics** and **bioterrorism**.

3. Lack of emphasis on Man-made hazards and Climate change risks- The Act has **not effectively addressed** the systemic and cascading nature of **climate-change related disasters** and **man-made disasters**.

4. Centralised and Top-Down Functioning- The centralized and top-down functional nature of the Disaster Management Act has often led to the **neglect of local and community-based interventions** crucial for long-term resilience and recovery.

Funding Challenges

1. Inadequate Funding- The allocated funds are insufficient to meet the actual needs during large-scale disasters. This has led to delays in response and recovery.

2. Bureaucratic Delays- The disbursement process prescribed by the DMA has met with bureaucratic hurdles, hindering timely assistance to affected populations.

What Should be the Way Forward?

1. Revision of key definitions- **Section 2 of the Act** should be **amended to include explicit definitions** for 'hazards,' 'prevention,' and 'mitigation,'. This will provide consistency and clarity throughout the Act.

2. Inclusion of disaster prevention chapters- Chapters that **explicitly address disaster prevention** and include **comprehensive prevention plans** should be introduced and included.

3. Enhanced accountability measures- **Judicial oversight to hold officials accountable** for their actions under the Act must be enhanced under the Act. This would enhance transparency and effectiveness of the Act.

4. Modernization of early warning systems- The early warning and forecasting clauses must be updated to incorporate **modern technologies** such as **GIS** and **AI**. This would improve prediction accuracy and response in cases of Disaster.

5. Community engagement and policymaker involvement- **Community awareness of disaster risks** and **management strategies** should be **enhanced**. The active engagement of policymakers and stakeholders in supporting and implementing disaster risk reduction and management initiatives, should be prioritised.

6. Special resource allocation- Specific annual budget allocations for disaster management must be **designated to ensure adequate funding for Disaster Management**.

Adopting these recommendations can transform the Disaster Management Act of 2005 into a more effective tool, promoting a proactive, organized, and successful approach to disaster management in India.

Read More- [The Indian Express](#)

UPSC Syllabus- GS-3 Disaster Management

Nutritional Security in India- Significance and Challenges- Explained Pointwise

The recently released NSSO's Household Consumption Expenditure Survey (HCES) 2022-23, provides fresh insights to access nutritional security in India. HCES 2022-23 report provides detailed data on the consumption of various food and non-food items by households and calculates the per capita daily calorie intake.

Key Findings of the Household Consumption Expenditure Survey (HCES) Report Regarding Nutrition Security in India

a. Nutritional Insecurity amongst the 10% Poorest Population- Average daily per capita calorie Intake (PCCI) for a healthy life is 2,172 kcal in rural India and 2,135 kcal in urban India. The calorie intake of the poorest 10% of the Indian population is below the average PCCI. The average daily PCCI of 10% poorest population is 1,564-1,764 kcal in rural areas and 1,607-1,773 kcal in urban areas.

b. Nutritional insecurity Variation amongst the 10% Poorest Population- There is variation in calorie intake amongst the 10% poorest population. The average PCCI for the poorest 5% in rural areas is 1,564 kcal, and for the next poorest 5% is 1,764 kcal. In urban areas, the figures are 1,607 kcal and 1,773 kcal, respectively.

c. Proportion of Poor/Deprived based on Nutritional Requirement- The proportion of poor based on the nutritional threshold of PCCI is estimated at 17.1% for rural areas and 14% for urban areas.

These findings highlight the prevailing nutritional insecurity in India. The policy focus of the Government of India must on ensuring nutritional Security along with food security.



Source- The Hindu

What is Nutritional Security? What is the Status of Nutrition insecurity in India?

Nutritional Security- According to the FAO (2009), nutrition security implies physical, economic and social access to balanced diet, clean drinking water, safe environment, and health care (preventive and curative) for every individual.

High Nutritional Insecurity in India (Malnutrition)- According to World Bank Report, despite the sharp decline in extreme poverty in India from 45.9% to 13.4% between 1993 and 2015, India still suffers from a high malnutrition burden.

Extreme Poverty according to WB- Defined at \$1.9 per capita per day at the 2011 purchasing power parity rate (PPP).

Latest Findings of NHFS-5 regarding malnutrition

- a. More than half the Indian women in the 15-49 age group are anaemic.
- b. The prevalence of stunting (Low height-for-age) amongst children under five years is 35.5%.
- c. The prevalence of wasting (Low weight-for-height) amongst Children under five years is 19.3%.
- d. The proportion of underweight children in India is 32.1%.

Double Burden of Nutritional Insecurity- According to a new Lancet study, there has been a steady increase in obesity levels in India. India has become one of the countries with a high 'double burden of nutritional insecurity', with the increase in both malnutrition and the obesity levels.

Read More- [Obesity in India- Explained Pointwise](#)

What are the reasons for the lack of Nutritional Security in India?

There are multiple reasons behind the lack of nutritional security in India. These are explained below-

- 1. Affordability Issues for the Poor Household-** Affordability of nutritious food products, such as green leafy vegetables, protein-rich diet, has become difficult for the poor households in India. The increasing wealth inequality, with top 10% of Indians holding 57% of the national income, has exacerbated nutritional insecurity.
- 2. Focus on Staple Crops-** Agricultural policies, like Green Revolution, have prioritized the production of staple crops like wheat and rice over diverse, nutrient-rich crops. This has led to micronutrient deficiencies amongst the population.
- 3. Calories Fundamentalism-** The focus of the Public Distribution Scheme has been limited to ensuring food security and calorie requirement. The need for nutritional development has not been taken into account.
- 4. Feminine marginalization in Nutrition-** The nutritional requirements of adolescent and young female in poor and lower middle income households are not prioritized. This leads to malnourished female population and their offsprings. For ex- Large prevalence of anemia due to inadequate focus on iron deficiency in female diet.
- 5. Laxity in effective implementation of Child Care practices-** Child caring practices, including exclusive breastfeeding, and introduction of complementary food and a diversified diet after the first six months, are not implemented properly. For ex- Only 55% of children in India were exclusively breastfed in 2015-16.
- 6. Growth of Fast-food and junk-food Culture-** Cheaper and easily available junk food has replaced the nutritious food in the dietary intakes of Indian population. For ex- According to recent Household Consumption Survey, Indians are spending less on cereals and pulses and more on beverages, refreshments and processed food.
- 7. Increased income and urbanization-** Increased income levels have led to a rise in the consumption of foods high in fats, sugar, and low physical activity. According to a joint study conducted by WHO and ICRIER, India's ultra-processed food industry has grown at a CAGR of 13.37% in terms of retail sales value between 2011 and 2021.

What are the negative effects of malnutrition?

- 1. Child Deaths-** According to a lancet Study in 2019, a **staggering 68% of 1.04 million deaths of children under five years in India** were attributable to malnutrition.
- 2. Improper development of Children in formative years-** Obesity in children results in **stunted physical and cognitive development**.
- 3. Psychosocial Impact-** Malnourished Individuals face psychosocial challenges like, **body image issues and mental health concerns** due to societal stigmas associated with weight.
- 4. Economic Burden-** Malnutrition increases the economic burden due to **productivity losses** on account of **decreased work efficiency and absenteeism**.
- 5. Social Inequality and Disparities-** Undernutrition and malnutrition perpetuates a cycle of health challenges and economic disadvantages amongst the **vulnerable sections**, exacerbates existing socio-economic disparities. **Women are disproportionately affected by malnutrition**, facing challenges related to reproductive health, maternal health, and overall well-being.

What Initiatives have been undertaken to provide for Nutritional Security in India?

National Nutrition Mission (NNM)	National Nutrition Mission (NNM), also known as POSHAN Abhiyan has been launched which aims to reduce stunting and underweight and low birth weight, each by 2% per annum ; and anemia amongst children, adolescent girls and women, each by 3% per annum by 2022 .
National Nutrition Strategy (2017)	It aims to reduce the prevalence of underweight children (0-3 years) by three percentage points every year by 2022 from NHFS 2015-16 estimates.
National Breastfeeding Promotion Programs	Programs like MAA- Mother's Absolute Affection and Vatsalya- Matri Amrit Kosh, aim to strengthen the regulation on breast milk substitutes and improve breastfeeding practice .
Integrated Child Development Services (ICDS)	Integrated Child Development Services provides nutritional meals, preschool education, primary healthcare, immunization, health check-up and referral services to children under 6 years of age and their mothers.
Midday Meal Scheme	It aims to provide cooked meals to every child within the age group of six to fourteen years studying in classes I to VIII who enrolls and attends the school.

What Should be the Way Forward?

- 1. Change in the Policy Focus-** The agricultural policies and programmes should be leveraged to be more '**nutrition sensitive**'. The focus of food distribution programmes need to **shift** from '**calories fundamentalism**' to **providing a more diversified food basket**, including coarse grains, millets, and pulses to improve the nutritional status of pre-school children and women of reproductive age.

2. Innovative approaches- Innovative techniques such as **bio-fortification**, which involves incorporating nutrients into the seeds of major food grains will help to improve the micro-nutrient intake. Various food-based safety nets such as **PDS, MDM** can include **bio-fortified staples** to provide a more diversified food basket.

3. Enhanced Focus on WASH initiatives- **Synergy** between **WASH initiatives** (safe drinking water, sanitation and hygiene) and **nutritional interventions** will have a multiplier effect on nutritional outcomes. This will help in improving child nutritional outcomes and are key to the success of nutritional interventions.

4. Focus on Women education- Targeted programs for improving the educational status of girls, particularly at the higher educational levels, need to be promoted. This will help in **better implementation of child care practices** like breastfeeding and nutritional needs of children.

5. Improving health care services- Improvement of access and utilization of **prenatal and postnatal health care services must be prioritized**. It would play a significant role in curbing undernutrition amongst children through comprehensive awareness programs and community participation.

6. Successful International Interventions- India can draw key lessons from these developing countries to tackle the challenge of food insecurity and malnutrition. **For ex- Brazil** has transformed its food system and is investing in agricultural R&D and **social protection programs** to reduce the level of hunger in the country. **China** has attached great importance to **early childhood development** and has formulated a series of plans in this regard.

Read More- [The Hindu](#)

UPSC Syllabus- GS Paper 2- Social Issues, Issues related to hunger and poverty

The Waqf (Amendment) Bill 2024- Key changes, Reasons and Concerns- Explained Pointwise

The Waqf (Amendment) Bill 2024 was tabled in the Lok Sabha recently by the Union Minister of Minority Affairs. The Bill, **proposes major changes to the Waqf Act 1995**, by introducing **sweeping changes** in the **governance** and **regulation** of **Waqfs** in India. However, the Bill has been met with strong criticism from the opposition parties, who have held it as unconstitutional, divisive and anti-minority. The Bill has been referred to a Joint Committee of Parliament, for detailed deliberations.

What is a Waqf Property? What has been the governance structure for Waqf properties in India?

Waqf Property- A waqf, also known as **habs** or **mortmain** property, is an inalienable charitable endowment established under Islamic law. It is a **personal property** given by **Muslims for a specific purpose**– religious, charitable, or for private purposes. The ownership of the property is implied to be with God. However, the beneficiaries of the property can be different.

Formation of Waqf- The Waqf can be formed through a deed, or Instrument, or even orally. A property can be deemed to be Waqf if it has been used for **religious** or **charitable purposes** for a long period of time. Once a property is declared as Waqf, its **character changes forever**, and cannot be reversed.

Governance Structure for Waqfs in India

Pre-colonial Governance- The Waqfs in India have been legally Governed in India since 1913. The Muslim Waqf Validating Act was enacted in 1913. This act was replaced by the Mussalman Wakf Act, 1923.

Post Independence- The **Central Waqf Act, 1954** was enacted after independence to provide for the regulation of Waqfs. This act was ultimately replaced by the **Waqf Act, 1995**.

What are the Major Provisions and Institutional Structure as Provided by the Waqf Act?

Survey commissioner	The Waqf Act provides for the appointment of a survey commissioner. The commissioner maintains a list of all Waqf properties by making local investigations, summoning witnesses, and requisitioning public documents.
Mutawalli (caretaker)	The Act provides for a Mutawalli (caretaker) who acts as a supervisor of the Waqf properties .
Management of Waqf Properties	Waqf properties are managed in a way that is similar to how properties under Trusts are managed under the Indian Trusts Act, 1882 .

Waqf Boards

About	<p>a. It is a body under the state government. It works as a custodian for Waqf properties across the state.</p> <p>b. In most states, there are separate Waqf Boards for the Shia and Sunni communities. Almost all prominent mosques in the country are Waqf properties and are under the Waqf Board of the state.</p>
Composition	<p>A Waqf Board is headed by a chairperson</p> <p>Members-</p> <ol style="list-style-type: none"> One or two nominees from the state government Muslim legislators and parliamentarians Muslim members of the state Bar Council Recognized scholars of Islamic theology Mutawallis of Waqfs with an annual income of Rs 1 lakh and above.
Powers and Functions	<p>a. Administration of the Waqf properties and taking measures for the recovery of lost properties of any Waqf</p> <p>b. Sanctioning any transfer of immovable property of a Waqf by way of sale, gift, mortgage, exchange, or lease. However, the sanction shall not be given unless at least two thirds of the members of the Waqf Board vote in favor of such a transaction.</p>

Central Waqf Council (CWC)

About	The Central Waqf Council (CWC) was established in 1964, to supervise and advise state-level Waqf Boards across India.
Functions	<ol style="list-style-type: none"> Provide Guidance to the Central, state Governments, and Waqf boards on property management. It can require boards Waqf boards to provide information on their performance, including financial records and reports.

Waqf Tribunal

About	The Waqf Act provided for a Waqf tribunal to be constituted by the state governments to resolve disputes related to Waqf properties in India. According to the Section 6 of
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	the Waqf Act 1995, the tribunal's decision is taken as final in case of disputes regarding a property's status as Waqf.
Composition	It comprises three members – a. Chairperson who is a state judicial officer not below the rank of a District, Sessions or Civil Judge, Class I. b. An officer from the state civil services . c. A person with knowledge of Muslim law and jurisprudence .

2013 Amendment to Waqf Act 1995

- a. Authority to Waqf Boards to designate a property as Waqf.
- a. Prescribed imprisonment of up to two years for encroachment on Waqf property
- b. Explicitly prohibit the sale, gift, exchange, mortgage, or transfer of Waqf property.

What key changes are introduced by the Waqf Amendment (Bill) 2024?

Key Changes	Waqf Act 1995	Waqf Amendment (Bill) 2024
Name Change	The parent Act was named Waqf Act, 1995	The new act will be called Unified Waqf Management, Empowerment, Efficiency and Development Act, 1995
Registration	No provision for mandatory registration	Mandatory registration of Waqf properties with the District Collector's Office for evaluation.
Creation of Waqf	No explicit provision	A new provision has been added, which provides that a person cannot create a Waqf unless he is the lawful owner of the property and competent to transfer or dedicate such property.
Recognition of Government properties as Waqf	No explicit provision	Government properties identified as Waqf properties before or after the act's commencement will not be considered Waqf properties.
Dispute Resolution in case of recognition of Government land as Waqf	Waqf Tribunal	The District Collector will decide whether a property is Waqf or government land , with their decision being final. The collector will update revenue records and report to the state government.
Oral Recognition of Waqf	Oral recognition was admissible for consideration of a property as Waqf	Removes provisions to allow a property to be considered Waqf based on oral declarations . Properties without a valid waqfnama will be treated as suspect or disputed and will remain inactive until the District Collector makes a final decision.
Waqf by use	Provided for Waqf by use. This means that a property could be deemed to be a Waqf through use even if	Omits the provisions relating to "Waqf by use". It makes a Waqf property suspect in the absence of a valid Waqfnama .

	the original declaration is suspect.	
Appeal Mechanism	Waqf Tribunal's decision was considered final.	Disputes with Waqf board decisions can now be appealed to high courts.
Audit of Waqfs	No provision of auditing	Central government will have the authority to order audits of Waqf properties by auditors appointed by the Comptroller and Auditor-General of India or designated officers.
Composition of Waqf Boards	No women and no non-Muslim members were allowed	Provides for the appointment of non-Muslim CEO and at least two non-Muslim members to the state Waqf Boards

What is the rationale for the Key changes introduced as part of amendments to the Waqf Act 1995?

- 1. Address Concerns around Mismanagement and Corruption of Waqf Boards-** There have been concerns regarding the **lack of transparency in the operations of Waqf Boards**, in financial and administrative operations. The proposed amendments are aimed at enhancing the operational transparency of Waqf Boards.
- 2. Reduction of property disputes-** The government contends that the amendments will lead to reduction of extensive disputes over waqf property, by **providing clear definitions** and **requiring mandatory verification** of property claims.
- 3. Streamlining of Legal Disputes and Jurisdiction Issues-** According to the Waqf Act, the **Waqf Tribunal's decision could not be appealed in civil courts.** This led to **perceptions of bias and injustice.** The proposed amendments seek to streamline the jurisdictional issues in line with the principles of natural justice.
- 4. Women Representation-** The proposed amendments which allow for women representation as members of Waqf Board is a **step in the direction of Women empowerment.**

What are the concerns surrounding the Waqf (Amendment) Bill 2024?

- 1. Violation of Religious Rights-** Critics argue that the bill **infringes upon the freedom of religion** as provided by Article 25 and the **autonomy of the Muslim community** to manage their own religious affairs.
- 2. Increased Government Control-** The proposed amendments grant greater powers to the government over Waqf properties, including the involvement of district collectors in property disputes. There are concerns that it can lead to **bureaucratic delays** and **potential judicial-executive overreach.**
- 3. Inclusion of Non-Muslims in Waqf Boards-** Critics argue that the inclusion of non-muslims, **undermines the integrity of these religious bodies.** Non-muslim members may lack comprehensive understanding of the cultural and religious practices of Islam.
- 4. Potential for Increased Disputes-** Removal of the waqf tribunal's authority and the assignment of this role to district collectors, could lead to increased disputes over Waqf properties. Critics argue that this **could complicate the resolution process** and **expose properties to further legal challenges.**
- 5. Lack of Community Consultation-** The bill has been criticized for being drafted without adequate consultation with the Muslim community and stakeholders. Many organizations, including the **All India Muslim Personal Law Board**, have voiced their concern that the bill was created without their input.

What Should be the Way Forward?

- 1. Adequate Deliberations in the JPC-** The government must try to address the concerns around the contentious provisions in the Waqf amendment Bill.

2. Broader Consultation- The government should engage in extensive consultations with various stakeholders, including **Muslim community leaders, legal experts, and civil society organizations.**

3. Public Awareness Campaigns- Implementing public awareness campaigns about the Waqf system and the proposed changes can help dispel misconceptions and educate the community about their rights and responsibilities under the new framework.

Read More- [The Indian Express](#)

UPSC Syllabus- GS 2- Issues related to Constitution

[Kurukshehra July 2024 Summary-2] Lakhpati Didi Initiative- Significance and Challenges- Explained Pointwise

With the success of the Deendayal Antyodaya Yojana National Rural Livelihood Mission (DAY-NRLM) in **mobilizing** more than **10 crore households** into **91 lakh Self-Help Groups** (SHGs), the focus has shifted now to creating sustainable livelihoods for the members. Lakhpati Initiative stresses on the **creation of different livelihood models** across the **farm and non-farm sectors** for enhancing the household income in a manner that each household earns at least one lakh rupees in a year.



Source- Kurukshehra

Who is Lakhpati Didi? What is the strategy of Lakhpati Didi Initiative?

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Lakhpati Didi- A Lakhpati Didi is a Self-Help Group member who earns an annual household income of Rupees One Lakh (Rs. 1,00,000) or more. This income is **calculated for at least four agricultural seasons** and/or business cycles, with an average monthly income exceeding Rupees Ten Thousand (Rs. 10,000), so that it is sustainable.

Strategy for Lakhpati Didi initiative

1. Deepening, Strengthening and Expansion of Livelihood options- Facilitating and enabling the households to take up **diversified income-generating activities**. **Trained Community Resource Persons** to **facilitate** the Livelihood Planning using a tool and uploading it to a digital platform for further consolidation and resource linkages.

2. Implementation Support- Adequate and timely support is facilitated to the SHG members/ Federations for Livelihood enhancement is provided in the form of-

- a. **Assets** (Input, equipment, infrastructure)
- b. **Skills** (Knowledge and practical skills)
- c. **Access to Finance** (Bank linkage, leveraging departmental schemes, Corporate Social Responsibility)
- d. **Marketing Support** (Branding, Packaging, e-commerce etc.).

3. Convergence and Partnerships- Convergence with various schemes (Inter and Intra departmental) undertaken for mobilizing technical, and financial resources, and capacity building of SHG federations.

Convergence between the schemes of Ministry of Rural Development (**MoRD**), Ministry of Agriculture & Farmers' Welfare (**MoA&FW**), Department of Animal Husbandry and Dairying (**DAHD**), Ministry of Food Processing Industries (**MoFPI**).

4. Training and Capacity Building- **Regular** and **structured capacity building** and **exposure** of **Mission staff, line department officials, community institutions, community cadre** and **resource persons** is undertaken.

What is the Significance of Lakhpati Didi Initiative?

1. Financial Empowerment of Women- The program targets to create **3 crore Lakhpati Didis by 2025**. By helping women attain a **sustainable income of at least Rs. 1 lakh per annum**, the initiative enables them to become **financially independent** and improve their standard of living.

2. Promotion of Entrepreneurship and Employment- The Lakhpati Didi initiative encourages women to start micro-enterprises and become self-reliant. This entrepreneurial skill will help in generation of additional employment. **For ex- Lakhpati Didis starting tailoring business after acquiring the necessary skills.**

3. Role Models of Women Empowerment- Lakhpati Didis serve as an inspiration to the women community to empower themselves. They inspire other women through their **adoption of sustainable livelihood practices** and **achievement of a decent standard of life**. They serve as conduits for crucial financial literacy, skill development, and livelihood assistance.

4. Rural Economic Development- The collective impact of empowered women entrepreneurs through Lakhpati Didi initiative contributes to the development of rural economy. **For ex- Development of Kondagaon block of Chhattisgarh through the Lakhpati Didi intervention.**

What are the Challenges in the Creation of Lakhpati Didis?

1. Skill Development and Training Gaps- Women in rural areas lack the **necessary skills and education**. This creates a challenge for the scaling up of programs like Lakhpati Didis which aim to utilize skills of rural women.

2. Lack of Access to Financial Resources- Rural women face barriers in accessing credit and financial services. The **lack of tailored financial products for rural women** hinders their ability to invest in and grow their businesses effectively.

3. Inadequate Market Linkages- Many women struggle to scale up their businesses due to **inadequate market linkages**. This limits their ability to sell their products and achieve sustainable income levels.

4. Cultural and Social Barriers- Women **face resistance from their families or communities**, in business operations. These barriers also hamper their engagement in the Lakhpati Didi initiatives.

5. Poor Digital Infrastructure- Poor digital infrastructure in rural areas such as **low internet speed, latency** and **lack of adequate digital equipments** create further challenges for the successful implementation of Lakhpati Didi Initiative.

What are the other Government initiatives for Women Empowerment?

Economic Empowerment	<ol style="list-style-type: none"> 1. Governments has been promoting equal pay for equal work through the four new labour codes. 2. Government has established maternity leave and childcare policies through the Maternity Benefit (Amendment) Act 2017. 3. It has also provided access to finance and entrepreneurship training for women, like the Mudra Yojana and the Mahila Udyam Nidhi Yojana.
Political Empowerment	<ol style="list-style-type: none"> 1. Nari Shakti Vandana Adhinyam (Women reservation Act)- Passed to provide 33% reservation for women in the Lok Sabha and state legislative assemblies. 2. 73rd and 74th amendment Act- Provided 33% reservation to women in local bodies. Some states like Bihar have increased the women reservation in the local bodies to 50%. 3. Govt has been encouraging political parties to nominate more women candidates and has been providing leadership training.
Social Empowerment	<ol style="list-style-type: none"> 1. Government has focused on ending child marriage and safeguarded sexual and reproductive health rights through The Prohibition of Child Marriage Act, 2006 and Medical Termination of Pregnancy Amendment Act of 2021. 2. Government has been protecting women's land rights through Digital India Land Records Modernisation Programme (DILRMP) and implementing gender-responsive budgeting, which are crucial steps towards achieving gender equality.

What Should be the way Forward?

1. Effective Monitoring and Evaluation- Effective monitoring and evaluation mechanisms are necessary to assess the impact of the initiative and make necessary adjustments. **Robust data collection** and **analysis** should be employed to understand the initiative's effectiveness and identify areas for improvement.

2. Skill Developing Training Programs- The **alignment of training program with market demands** and equipping of women with practical, applicable skills is crucial for their success in micro-enterprises.

3. Enhanced Market Access- The initiative must focus on creating **technology-driven solutions** and ensuring **adequacy of digital resources** to enhance market access of Lakhpati Didis.

4. Government and Institutional Collaboration- Ensuring effective collaboration among various government departments, NGOs, and private sector players to create a holistic support system for women entrepreneurs.

Source- Kurukshetra Chapter 1

Read More- [Lakhpati Didi](#)

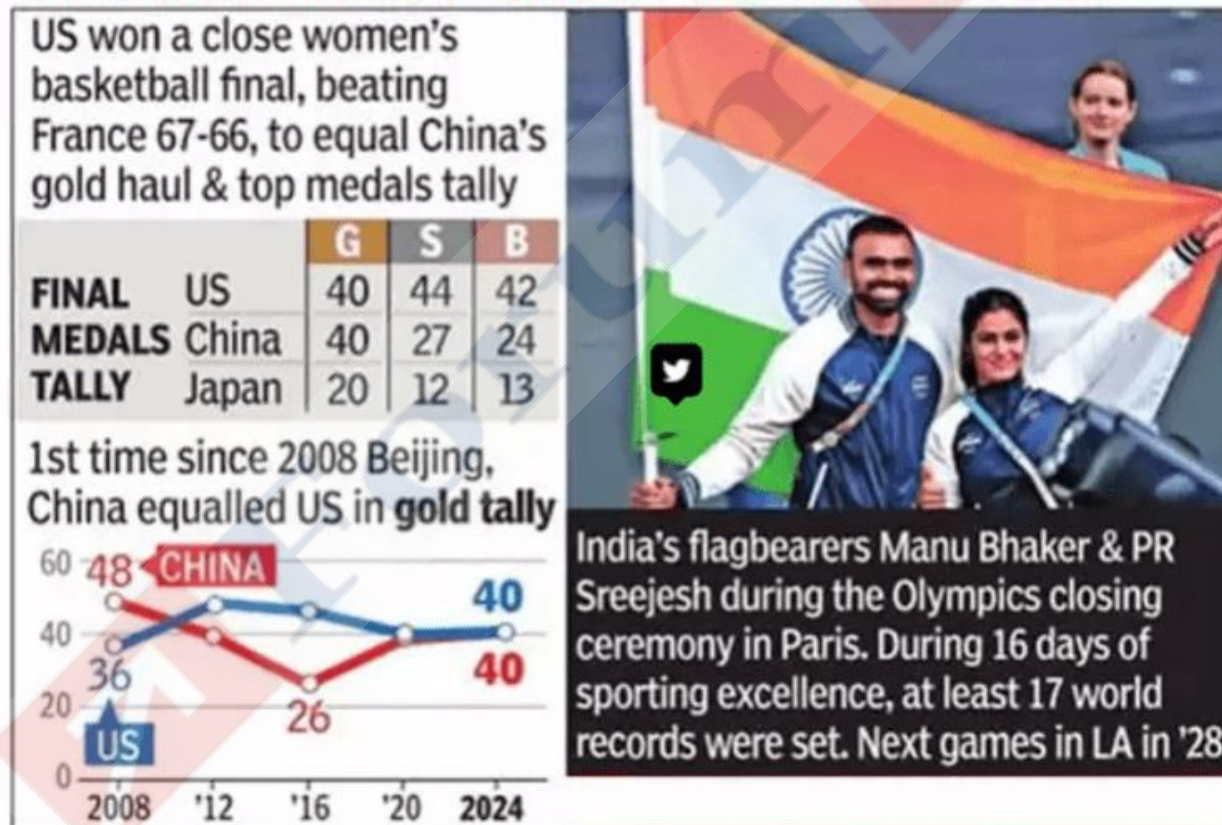
Syllabus- GS 1- Issues related to Women

India's Paris Olympics Performance- Challenges and Way Forward

India's Paris Olympics Performance **fell short of its last Tokyo Olympics performance**. India failed to improve on its last Olympics medal haul of seven medals. India finished with six medals, with its ranking in the medals tally **slipping from 48th place in 2021 to 71st place in 2024**. For a nation of 1.4 billion, our return of one silver and 5 bronze is very meagre.

In this article, we will delve into India's performance at the Paris Olympics, the hits, and the misses. We will analyze the reasons behind India's underperformance at the biggest sporting spectacle at the globe. We will also delve into the measures that will make India a sporting powerhouse in the future.

US BAGS LAST GOLD TO TOP TALLY



Source- The Times of India

How was India's performance at the Paris Olympics 2024? What were the hits and misses?

About the Paris Olympics- The **Summer Olympic Games 2024** branded as the **Paris Olympics 2024**, is an international multi-sport event that occurred from 24 July to 11 August 2024 in France. **Paris** was the **host city** of these games. The official motto of the olympics is- **Games Wide Open**. The games saw the participation of

10,714 athletes, from 206 nations, in 329 events in 32 different sports. Paris 2024 featured the **debut of breaking** as an Olympic sport.

Top Performing Nations- The **United States** topped the medal table with **40 gold medals** and 126 medals in total. **China finished second**, with 40 gold medals and 91 medals overall. Both USA and China were tied in terms of gold medals. This is also the **first time** that there has ever been a **tie in gold medals at the top of the table** in Summer Olympic history. **Japan finished third** with 20 gold medals and sixth in the overall medal count.

India's Performance at the Paris Olympics- India was placed at 71st position in the medals table. India's performance at the 2024 Paris Olympics was a mixed bag. India saw both successes and disappointments.

INDIA AT GAMES OVER THE YEARS

Games	Gold	Silver	Bronze	Total
2008 Beijing	1	0	2	3
2012 London	0	2	4	6
2016 Rio	0	1	1	2
2020 Tokyo	1	2	4	7
2024 Paris	0	1	5	6

Source- The Times of India

Hits of India's performance

- 1. Back to Back Medal in athletics-** Neeraj Chopra won a silver medal in the men's javelin throw. With this, he became the third Indian to claim two consecutive individual medals.
- 2. Spirited performance in Shooting-** Shooters Manu Bhaker (25m sports pistol), Swapnil Kusale (50m rifle 3-position), and the mixed team pair of Sarabjot Singh and Manu Bhaker (10m air pistol) won bronze medals.
- 3. Bankable Wrestling-** Wrestler Aman Sehrawat won a bronze medal. Wrestling has never disappointed Indian sports fan since 2008, with ensuring at least one medal at each Olympic's event.
- 4. Rise of Indian Hockey-** The Indian men's hockey team secured a bronze medal. Indian hockey is on the rise again, with 2 back to back medals at the Olympics.

Misses in India's performance

- 1. Lack of Gold Medal-** While the country matched its London 2012 tally, securing six medals (one silver and five bronze), the lack of a single gold medal was a major letdown. Pakistan, with a considerably smaller contingent side, finished with a gold medal and a higher standing at the points table.
- 2. Disqualification of Vinesh Phogat-** The unexpected disqualification of Vinesh Phogat, after reaching the women's 50kg wrestling final, denied India a gold or silver medal.

3. Six 4th Place Finishes- Six 4th place finishes denied India six potential bronze medals. Shooters Arjun Babuta (10m air rifle) and the mixed team pair of Anantjeet Singh Naruka and Maheshwari Chauhan (skeet), the archery mixed team pair of Ankita Bhakat and B. Dhiraj, shuttler Lakshya Sen, and weightlifter Mirabai Chanu lost their respective bronze medal contests.

4. Disappointed performances in badminton, boxing, and archery- Boxers Nishant Dev and Lovlina Borgohain lost in the quarterfinals, just a step away from securing a medal. Badminton which has been delivering medals for India since 2012, drew a blank. Disappointment with archery continued at the Olympics.

What are the reasons behind India's underpar Paris Olympics performance?

1. Mismanagement of Athletes- There are issues of mismanagement and inadequate support provided to athletes. **For ex- Vinesh Phogat's unexpected disqualification after reaching the finals**, highlights systemic failures in athlete management.

2. Lack of Consistency and Performance Pressure- The six 4th place finishes highlight the lack of consistency and the attitude of succumbing to performance pressure. **For ex- Several athletes had leads in their matches but failed to convert them** into victories due to performance pressure and lack of adequate mental strengthening.

3. Issues with sports federation- Indian sports federations suffer from **politicization**, and systemic rot of **favoritism** and **corruption**. The reservation system in sports administration often lead to inefficiencies and the selection of less capable candidates. **For ex-** The mess of Indian sports federations are highlighted in the confusion of Phogat's weight category and Nikhat Zareen's lack of match-day training.

4. Inadequate Infrastructure and Training Facilities- Indian sports typically suffer from challenges such as **insufficient access to high-quality coaching, training programs**, and **competitive exposure**, as compared with other top sporting nations.

5. Celebrity driven sports funding- While the spending on elite athletes was generous, however it was celebrity-driven and without foresight. A lot of celebrity Indian Olympians **failed to ensure accountability** by failing to **put in their season's best** or **personal best performances**.

6. Cultural and Systemic Barriers- The cultural emphasis **on academic success over sports** has historically **limited the pool of athletes pursuing sports** as a career.

7. Inconsistent Government Support- Despite improvements in sports funding and support, the **prioritization of sports education and infrastructure remains low** compared to other pressing social issues. This lack of long-term investment in sports development hinders the growth of a robust sports culture in India.

What Government initiatives have been launched to improve India's performance at the Olympics?

Target Olympic Podium Scheme (TOPS)	TOPS is a flagship initiative designed to provide comprehensive support to elite athletes. It was launched in September 2014 and revamped in April 2018 . The athletes receive monthly stipends of ₹50,000 , along with funding for training camps, international competitions, and equipment.
Mission Olympic Cell (MOC)	This dedicated body oversees the implementation of TOPS , regularly evaluating athletes' progress and needs to provide necessary support
Khelo India Scheme	It was introduced to promote sports at the grassroots level and to build a strong foundation for sports in the country . Its key features include Infrastructure Development, Talent Identification, and coaching and training.

International Exposure and Training Camps	Athletes are provided opportunities for foreign training and competition. This is crucial for gaining experience and improving performance on the world stage.
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What Should be the Way Forward to improve India's performance at the Olympics?

- 1. Broad basing into other sports-** India should ensure of **sending a larger pool of athletes at the olympics 2028**, by broad-basing into swimming and athletics. The top athletes of badminton, weightlifting, wrestling, and boxing must keep up with their medal marks.
- 2. Ending bureaucratic dominance and corruption-** Indian sports bodies and federations must be depoliticized. The establishment of professionalism in the operations of these bodies will help in identification of right talent, their grooming and success at the highest level.
- 3. Mental conditioning-** India should not see the six fourth-place finishes as the speck of morning light that promises a sparkling dawn. These near-misses **need to be minutely analyzed for meltdowns under pressure**. More mental conditioning coaches need to be employed.
- 4. Collaborative effort-** Indian sports needs to go into a huddle. The important stake-holders- **federations, Sports Authority of India, Sports Ministry** and other NGOs- need to pull in the same direction. Olympic medals need a process and persistence with top names, at least over a couple of cycles.
- 5. Integration of Sports in the Curriculum-** Sports and physical education should be integrated into the school curriculum from an early age. As highlighted in the **National Education Policy (NEP) 2020**, sports should be seen as integral to experiential learning, promoting physical and psychological well-being.
- 6. Establishment of a National Sports Education Board-** Creation of a **National Sports Education Board (NASECA)** would help standardize sports education across the country. This body can **oversee the development and implementation of a national sports curriculum**.
- 7. Promotion of a Sports Culture-** Sports culture is significant to shift societal attitudes to view sports as a legitimate career path and not just a pastime. This can be instituted through community engagement, media campaigns, and school initiatives.

Read More- [The Indian express](#)

UPSC Syllabus- GS 2- Govt intervention for development of various sectors

Horticulture Sector in India- Significance and Challenges- Explained Pointwise

Horticulture sector in India has been identified as a **sunrise sector** by the government of India. The recently launched **Clean Plant Programme (CPP)**, by the government of India, **aims to increase the yield and productivity of horticulture crops in India**. The focus of the Indian diet, **shifting from mere calorie security to a nutrition-secure mindset**, has also led to the growth of horticultural sector in India.

However, despite the significance of the horticulture sector, there are **key challenges in the realization of full potential of the sector**. In this article, we will also look at the government initiatives for addressing these challenges.



Source- Indian express

What is Horticulture? What is the status of Horticulture sector in India?

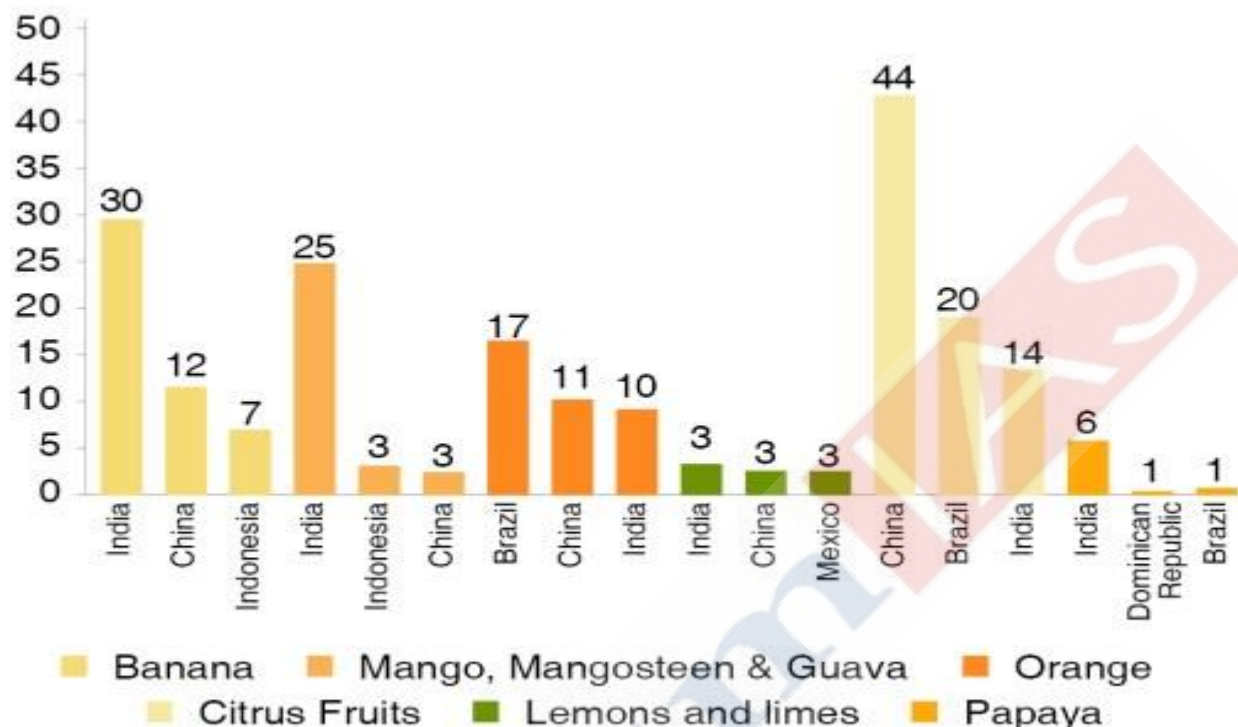
Horticulture- Horticulture is the **art and science of cultivation** of various **fruits, vegetables, spices condiments, ornamental, plantation, medicinal and aromatic plants**. It also involves the study of plant physiology, genetics, propagation, and the management of plants and their environment to maximize their growth and health.

Branches of Horticultural activities- Horticulture has various branches such as **floriculture** (science of growing flowers), **olericulture** (science of growing vegetables), **pomology** (science of growing fruits).

Status of Horticulture in India- The diverse agro-climatic conditions and rich diversity in crops and genetic resources enable India to produce a wide range of horticultural crops round the year. India produces a tropical fruit like mango and sub-tropical fruit like apple at the same season in a year.

a. **Second-Largest producer-** India is the second-largest producer of **fruits and vegetables** in the world **after China**. India ranks first in the production of number of crops like Banana, Lime & Lemon, Papaya, Okra.

Figure 1: Leading producers of fruits



Source: FAO, figures of production in million tonnes

Source- FAO

b. **Contribution to agriculture GVA**- Indian horticulture sector contributes about **33% to the agriculture Gross Value Added (GVA)** while using only **13.1% of the gross cropped area**.

c. **Increase in area under cultivation and production**- From 2013-14 to 2023-24, the area under horticulture crops has risen from **24 million hectares** to **28.63 million hectares**. The production during the same period has increased from **277.4 million metric tonnes (MT)** to **352 million metric tonnes (MT)**.

d. **Higher production and productivity than food grains**- The horticultural crops have higher production and productivity as compared to food grains.

e. **Major exporter and importer of fruits**- India is also a major importer and exporter of fresh fruits. In the financial year 2023-24, India exported fresh fruits worth \$1.15 billion, while it imported fruits worth \$2.73 billion.

What is the significance of Horticulture Sector in India?

1. Farm produce diversification- The adoption of horticulture promotes crop diversification which has multiple benefits such as **soil conservation**, promotion of **resilient agriculture** and **organic farming**. The horticultural crops like **cashew**, **arecanut** are **cash rich crops**, which also enhance farmer's income.

2. Employment Generation- The horticulture sector is labour intensive in nature and provides significant livelihood opportunities across various stages of production, processing, and marketing. According to research, one hectare of fruit production generates **860 man-days per annum**, as against **143 man-days in cereal crops**.

3. Combatting malnutrition- The increase in the production and consumption of fruits and vegetables helps in combatting the challenge of malnutrition and chronic hunger. **For ex- Increased affordability of green leafy vegetables** would help in **combatting iron deficiency** in women.

4. Diversification of export basket- Horticultural crops **diversifies export basket** and creates better opportunities for agriculture trade and expands markets for Indian produce.

5. Growth of food processing industry- The horticultural crops have high potential for value addition. They create forward and backward linkages and support the food processing industry. **For ex- Processing of plantation crops like tea, coffee;** supports the growth of food processing industry.

6. Resilience and better productivity- The Horticulture crops need relatively less water than food crops and are more resilient to climate change.

7. Push to Agri-Inputs Sector- Increase in horticulture production also unlocks immense potential for the **agri-inputs sector** that comprises **seeds, agrochemicals, and fertilisers.**

What are the Challenges to the Growth of Horticultural sector in India?

1. Pests and Diseases- Horticultural crops in India are often destroyed due to pest, fungal infection and bacterial blights. **For ex- Blight fungus destroying potato exports,** bacterial blights affecting pomegranate orchards.

2. Fragmented landholdings and low irrigation coverage- These result in lack of economies of scale of production, leading to higher production costs and reduced price competitiveness.

3. Staggering post harvest losses- Horticulture sector in India witnesses **high post-harvest losses with 30-35% of the fruits and vegetables perishing at various stages** like harvesting, storage, grading, transport, packaging, and distribution. Only **2% of these crops are processed in to value added products.**

4. Lack of adequate infrastructure- The horticulture sector in India lacks adequate post harvest and marketing infrastructure like **Processing units, packaging and grading facilities, cold storage facility, refrigerated transport vehicles/ containers, storage and phytosanitary facilities.**

5. Dominance of Small scale low capacity food processing units- The Indian horticultural crops processing units are dominated by small scale units with **installed processing capacity of 50 tons to 250 tons a year.** In comparison, the **MNCs food processing capacity is 05 to 30 tons per hour.** This results in **low Indian export of horticultural produce** as compared to other horticulturally rich countries like China, Brazil, USA, Italy, Spain, Mexico, Iran, Philippines, Turkey, and Thailand.

6. Marketing and Export Barriers- Small farmers lack scale for proper marketing of their produce. They rely on selling them in local haats or the arhatiyas. Further, these crops face tariffs and non-tariff barriers in the form of **sanitary and phyto-sanitary measures.**

What Government initiatives have been taken for Horticulture sector in India?

<p>Mission for Integrated Development of Horticulture (MIDH)</p>	<p>It is a centrally Sponsored Scheme for the holistic growth of the horticulture sector. The scheme covers fruits, vegetables, root and tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, and cocoa.</p>
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Coordinated programme on Horticulture Assessment and Management using geoinformatics (CHAMAN)	This programme aims to develop and firm up scientific methodology for estimation of area and production under horticulture crops by using Remote Sensing and Sample Survey Techniques .
Clean Plant Programme	CPP aims to enhance the quality of fruit crops across the nation by providing disease free mother plants of horticultural crops.
Horticulture Cluster Development Programme	It is a central sector programme aimed at growing and developing identified horticulture clusters to make them globally competitive. It is implemented by the National Horticulture Board (NHB) of the Ministry of Agriculture and Farmers' Welfare.
Operation Greens	Operation Greens has been launched on lines of operation flood, for holistic development of Tomatoes, Onions and Potatoes (TOPs)
Mega Food Parks	Establishment of agriculture export zones and Mega food parks to increase processing facilities for horticulture crops.

What should be the Way Forward?

1. Improvement of seed varieties- The focus must be on **agronomic and genetic seed innovations** to enhance shelf life and improve access to quality Fruits and Vegetable produce in the country. Development of High quality seeds can help in the extension of geographical footprint for cultivation.

2. 1.0 Hectare Model of Integrated Farming- This **cluster-based, whole-farm approach** includes multiple interventions such as solar-powered farming equipment, water conservation practices, diversified cropping integrated with livestock, village cluster creation for produce aggregation and exports. The adoption of this model can improve the horticulture potential of the country.

3. Multi-stakeholder Partnerships- Partnerships among farmers, government, customers, industry, and academia/research need to be strengthened to achieve the required growth in the horticulture sector in India. **For ex- Use of Corporate Social Responsibility grants for horticultural research.**

4. Promoting Horticultural Export Growth through ODOP- One District One product should be leveraged to scale up the horticultural produce and its processing. **For ex- Production and processing of Litchi (Bihar), strawberries (Bundelkhand) and kiwis (Uttarakhand).**

5. Technological Advancements- Digital and technology advancements and increased focus on bio-based and sustainable solutions can solve the challenges of horticulture value chains. **For ex-** Employment of artificial intelligence, machine learning, and Internet of Things in horticulture.

Read More- [The Indian express](#)

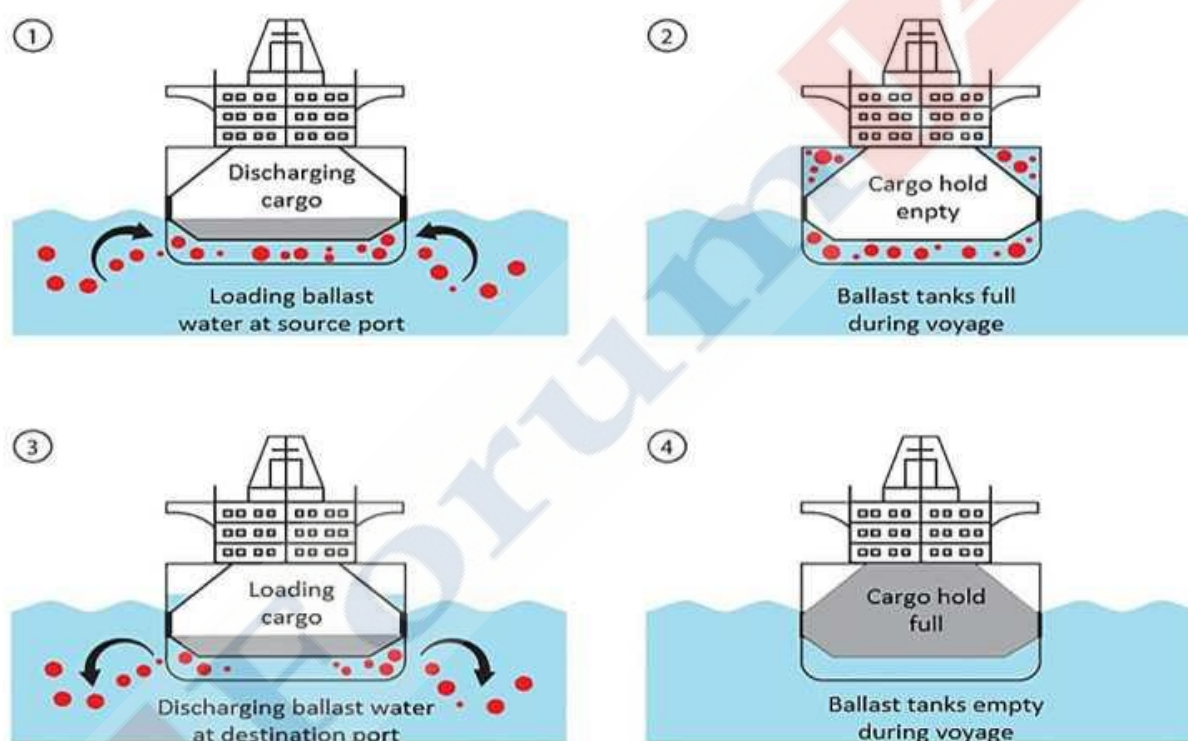
UPSC Syllabus- GS Paper 3 Agriculture – Major crops-cropping patterns in various parts of the country; Food processing and related industries in India- scope' and significance, location, upstream and downstream requirements, supply chain management.

Ballast water Management in India- Significance and Challenges- Explained Pointwise

The ballast water management is in news recently after the case of Tamil Nadu Water Resources Department (WRD) demanding ₹160 crore from the **Kamarajar Port in Ennore, Tamil Nadu**, for **inefficient ballast water management**. Tamil Nadu WRD contends that inefficient ballast water management has led to the growth and proliferation of *Mytella strigata*, or charru mussel. This mussel harms marine ecosystems and hinders fisher boat movements, affecting their livelihood.

What is Ballast Water? What is the importance of Ballast Water?

Ballast water- Ballast water is the water that ships carry in their ballast tanks to maintain stability and maneuverability during voyages. This water can be either fresh or saltwater. Ships typically take on ballast water after unloading cargo and discharge it at the next port when they load more cargo.



Source- GMS Instrument

Importance of Ballast Water-

- 1. Stability-** Addition of ballast water lowers the center of gravity of the ships, preventing them from capsizing.
- 2. Maneuverability-** It enhances the ship's ability to navigate safely through different sea conditions, in particular rough sea conditions.
- 3. Weight Adjustment-** It compensates for changes in cargo load, fuel consumption, and other weight variations during a voyage.
- 4. Pass through bridges and other structures-** Ballast water is also used to add weight so that a ship sinks low enough in the water to pass under bridges and other structures.

What are the Challenges posed by Ballast Water?

- 1. Introduction of Invasive Species-** Ballast water have been associated with introduction of invasive species, as they contain a wide range of aquatic organisms, including microorganisms, larvae, and small species. Invasive species outcompete with native species, disrupt ecosystems, and lead to declines in biodiversity. **For ex-** Scientists in India have recorded nearly **30 invasive species** coming from ship ballast water, with **Charru mussel** being the most harmful.
- 2. Ecological Disruption-** Invasive species introduced through ballast water disrupt ecosystems by altering food webs, and habitats. This disruption leads to decline in economically and ecologically important native species. **For ex-** Charru mussel has led to **ecological disruption** in the **Pulicat lake in Tamil Nadu**, and **Ashtamudi lake in Kerala**.
- 3. Oceanic Pollution and Algal Blooms-** Ballast water contain pollutants such as **oil, heavy metals, and chemicals**. Discharging polluted ballast water often results in the release of these contaminants into aquatic ecosystems. These also cause Harmful algal blooms (HABs) which lead to **fish kills, and shellfish contamination**.
- 4. Spread of Diseases-** Pathogenic microorganisms and diseases are transported through ballast water. The release of these pathogens pose risks to **human health, wildlife, and aquatic organisms**.
- 5. Economic Impact-** The introduction of invasive species and water quality issues caused by ballast water pollution have economic consequences for industries such as **fisheries, aquaculture, tourism, and water supply**.

What steps have been taken for regulation of Ballast Water?

Ballast Water Management (BWM) Convention	The Ballast Water Management (BWM) Convention of the International Maritime Organization (IMO) came into force in 2017 to help prevent the spread of potentially harmful aquatic organisms and pathogens in ships' ballast water. The ships must manage their ballast water so that aquatic organisms and pathogens are removed or rendered harmless before the ballast water is released in a new location.
New Ships with Ballast water management systems	Ships constructed after the implementation of Ballast water management Convention, have functional ballast water management systems. These ships dose the ballast water with chemicals so that all the water is rendered free of any biological organism before the water is pumped out during the loading of cargo .
Old Ships following Ballast Water Management System	Ships built before the BWM convention that do not possess the Ballast Water Management System are required to exchange the ballast water they took in a port with "neutral" water from the middle of the oceans en route to the loading port.
Strict Implementation in Australia and New Zealand	Ships calling on Australian and New Zealand ports are subjected to rigorous checks, including of ballast water management systems.

India is not a signatory to BWM Convention- Since India is not a signatory to the Ballistic Water Management convention, the discharge of ballast water brought in from other countries is not subject to checks or regulation.

What are the challenges in complying with ballast water management regulations?

- 1. Ballast Water Management System (BWMS) Performance-** Many BWMS installations face operational issues, such as **malfunctions, inefficiencies in treating ballast water, incorrect installation, inadequate maintenance, or failure to operate under optimal conditions** (for ex- UV intensity or chemical dosage).

2. System Compatibility- Different ships have unique configurations and operational conditions. This makes it challenging to implement a **one-size-fits-all BWMS**.

3. Maintenance Requirements- BWMS requires regular maintenance and monitoring to function effectively. This process is **time and resource intensive**, which can **impact shipping schedules** and **operational efficiency**.

4. Monitoring and Reporting- Monitoring and reporting of compliance is often **burdensome for ship operators**.

What Should be the way Forward?

1. Signing and ratification of BWM Convention- **India must sign and ratify** the Ballast Water Management (BWM) convention at the earliest, for effective management of ballast water and getting rid of its detrimental environmental consequences.

2. Comprehensive Training Programs- Shipping companies should invest in robust training modules to ensure that **crew members are proficient in operating** and **maintaining ballast water management systems** effectively.

3. Standardization of Regulations- Efforts towards standardizing ballast water management regulations across different jurisdictions should be taken to **reduce confusion among the ship operators** and **enhance compliance**.

4. Collaboration with Stakeholders- Engagement with various stakeholders, including governments, industry experts, and environmental organizations, can foster innovation and the sharing of best practices in ballast water management.

Read More- [The Hindu](#)

UPSC Syllabus- GS 2- International Conventions and Organisations, GS 3 Environment

Women Safety in India- Challenges and Way Forward- Explained Pointwise

“The day a woman can walk freely on the roads at night, that day we can say that India has achieved independence”- Mahatma Gandhi

The horrific incident of the **rape and murder of a trainee doctor in Kolkata** has sent shock waves across the nation and again has drawn our attention towards the issue of women safety in India. This incident is drawing the same public ire which was generated by the Nirbhaya Rape case.

Despite advancements in technology and urbanization, **women in India continue to face violence and discrimination**. It is deeply distressing that **nearly 88 rape cases are reported daily in the country**, with many more likely going unreported. Our rich cultural heritage and value system have failed to protect the very individuals who are the foundation of society.



Created by Forum IAS

What are the safety issues faced by women in India? What are the data regarding women safety in India?

Women Safety Issues in India- India is a country where women worshiped as Goddesses. However, India remains a hub of alarming atrocities when it comes to women safety. There has been profusion of women safety issues such as **rape, eve-teasing, domestic violence, assaulting, child marriage, and dowry cases**. In the past 10 years, women's vulnerability has increased many folds in India.

NCRB Report 2023 Data related to crime against women

Women's Safety Indices

According to the Women, Peace, and Security Index 2023, **India ranks 128th out of 177 countries**. The **index score for India is 0.58**, which places it in the fourth quin tile for women's safety.

National Family Health Survey (NFHS-5)

As per the National Family Health Survey (NFHS-5), around **30% of women in India** between **15-49 years** of age have experienced physical, sexual or domestic violence.

What are the reasons behind lack of women safety in India?

1. Prevalence of patriarchy- There is deeply entrenched patriarchal culture in India. This perpetuates the belief in male superiority and normalizes violence against women. **For ex-** Prevalence of 'Ladka hai Galti ho jaati hai mindset' in India.

2. Objectification of Women- The degenerated portrayal of women in media and entertainment reduces them to objects. This objectification often leads to increased instances of harassment and violence. **For ex-** Increased objectification of sexuality in movies.

3. Cultural Stigma- Cultural stigmas regarding sexual violence and harassment, leads to underreporting of crimes, many women fear societal backlash on account of reporting of harassment issues. **For ex-** Brushing off the child molestation issues under the carpet.

4. Economic Dependency- Feminization of poverty and high economic dependency on male family members, exacerbate the vulnerability of women. The lack of financial independence, makes it difficult for them to escape domestic abuses. **For ex-** Increase in cases of domestic violence against housewives.

5. Lack of Awareness and Education- Many women in India are unaware of the legal protections available for women, such as the Domestic Violence Act, Sexual Harassment Act. This leads to a culture of violence and abuse against women.

6. Inadequate safety in public places- Inadequacies in public infrastructure, such as poorly lit streets, lack of safe transportation options, lack of CCTVs, increase vulnerability of women to crime. **For ex-** Nirbhaya Rape in a public transportation and Kolkata rape in a public hospital highlights the lack of public safe spaces for women.

What initiatives have been taken by the Government to prevent crimes against women?

Legal Protection

Against Child violence	Prohibition of Child Marriage Act, 2006 Juvenile Justice (care and protection of children) Act, 2015 The Commissions for Protection of Child Rights Act The Protection of Children from Sexual Offences Act, 2012.
Against objectification of women	Indecent Representation of Women (Prohibition) Act, 1986.
Against Sexual Offences	Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013. Criminal Law (Amendments), Act 2013 for effective legal deterrence against sexual offences. Criminal Law (Amendment) Act, 2018 for even more stringent penal provisions including death penalty for rape of a girl below the age of 12 years.
Against Domestic Violence	Dowry Prohibition Act, 1961 Protection of Women from Domestic Violence Act, 2005.

Central Government Initiatives

a. **Establishment of Nirbhaya Fund-** The Government has set up Nirbhaya Fund for projects for safety and security of women.

b. **Investigation Tracking System for Sexual Offenses-** MHA has launched it to monitor and track time-bound investigation in sexual assault cases in accordance with Criminal Law (Amendment) Act 2018.

c. **National Database on Sexual Offenders-** MHA has launched it to facilitate investigation and tracking of sexual offenders across the country by law enforcement agencies. NDSO has data of over 5 lakh sexual

offenders.

d. **Cybercrime Portal**- MHA has launched a cyber-crime portal to report obscene content. Cyber Crime Forensic Labs have been set up in several States.

e. **Establishment of One stop centers**- Scheme of One Stop Centers has been launched to provide integrated support and assistance to women affected by violence.

f. **Scheme for Universalization of Women Helpline**- It has been launched to provide 24 hours emergency and non-emergency response to women impacted by violence.

State Government and other Initiatives

a. **Mission Shakti**- It has been launched by the **UP government** to make improvements to women's safety, and reduce the consequent violence and exploitation faced by them.

b. **Police pink booths**- Launched by the **Delhi government**, these booths are dedicated to addressing the grievances of women passersby.

c. **Shakti Criminal Laws (Maharashtra Amendment) Act**- The **Maharashtra Assembly** passed the Shakti Criminal Laws (Maharashtra Amendment) Act to approve death penalty for heinous offences of rape and gangrape.

d. **Meri Saheli Initiative**- Launched by the **railway Protection force**, this initiative ensures security of lady passengers that are traveling by train by a dedicated Mahila officers team.

e. **Online Movements and campaigns**- **#CallItOut because #ItsNotOK campaign**, **#MeToo movement**, have been launched to facilitate knowledge transfer and coordinate efforts towards the prevention of harassment against women.

What are the challenges in ensuring safety of women despite the legal and policy initiatives?

1. **Delayed Justice**- The inefficiencies of the justice system, such as **prolonged legal processes** and **lenient punishments for sexual offenders**, undermines public confidence in law enforcement.

2. **Laxity in conviction procedure**- **39% of officers believe complaints of gender-based violence are baseless**. Prevalent culture of prompt registration of FIRs, lack of time-bound investigations and ineffective collection of forensic evidence in sexual assault cases, lead to inordinate delays in conviction of sexual harassment cases.

3. **Half Hearted implementation**- SC has called out the '**authorities/management/employers**' for failing to ensure a "safe and secure work place" for women. It has been observed that the implementation of the Sexual Harassment of Women at Workplace (Prevention, Prohibition, Redressal) Act, 2013, has been half-hearted.

4. **Ineffective utilisation of public funds**- Even though the budgetary allocation of the Nirbhaya Fund has increased by 100% between 2013 to 2022, **less than half of the allocation to the fund has been used**.

What are the implications of prevailing attitudes and crimes against women?

1. **Dissuades women from entering the workforce**- Crimes against women is a factor **influencing India's chronically low female workforce participation rates**.

2. **Chauvinistic attitude of men in the family**- Men-folk **do not to encourage women** in their families to **seek financial or social independence in jobs or careers**.

3. **Societal attitudes leading to more crimes against women**- The crimes against the girl child **skews the gender ratio**, leading to kidnapping and abduction for seeking wives.

4. **Physical and Mental Health Consequences**- Victims of sexual violence experience severe physical injuries, which can lead to long-term health issues such as **chronic pain**, **reproductive health problems**, and **increased susceptibility to sexually transmitted infections** (STIs) including HIV.

5. Impact on Families and Children- Children who witness violence against their mothers often **face the risk of developing emotional and behavioral problems**. They may also become victims of abuse themselves, perpetuating a cycle of violence across generations.

What Should be the way Forward?

1. Police reforms- There should be gender focused recruitment and training in police. There is a need to **create women police stations** and **engagement of mahila police volunteers**.

2. Judicial reforms- There should be **establishment of Fast track courts** and **enhanced punishment in grave cases** like rape, as recommended by **Justice Verma Committee**. Further, the women representation in judiciary must be enhanced.

3. Training and capacity building- Manpower training and skill building programs for **Investigation Officers, Prosecution Officers** and **Medical Officers** must be stepped up. **Gender-sensitive training** and monitoring in criminal law procedures must be promoted to ensure that staff handle cases with a **trauma-informed approach**.

4. Establishment of rape Crisis centres- **Rape Crisis Centres** like in countries like **Australia, Canada, America, United Kingdom**, etc, can be set up in India. These centres can provide the rape victims with medical help, counselling, and financial help by way of providing job opportunities etc.

5. Sensitivity on part of Media- The media must be **sensitive to the plight of the rape victim** and must not highlight the name or any inference leading to the identification of the victim. The **media must highlight those cases where the offender has been convicted**, as it will infuse the feeling of deterrence among the people.

6. Civil society participation- Active participation of civil society against such crimes and helping state and law enforcement agencies in nabbing the criminal is critical.

Read More- [The Indian Express](#)

UPSC Syllabus- GS1 Issues related to Women

Inflation Management in India- Challenges and Way Forward- Explained Pointwise

The economic survey 2023-24 has **suggested changes in India's Inflation management approach**. The economic survey has proposed **removal of food prices from India's inflation target**. It suggests **shifting** of inflation targeting in India from the **'headline'** to **'core'** inflation. However, there are concerns whether the exclusion of food items, will yield the desired results.

In this article we will delve into inflation, its targeting method currently employed. We will look at the concerns being raised about the shift in approach of inflation targeting from 'headline' to 'core' inflation. We will look at the other challenges in inflation management in India.



Measures employed in India to control inflation

Inflation management is a **complex task** as inflation is caused by several factors such as **demand-pull factors**, **cost push factors** and **structural factors**. Therefore a mix of macro-economic policies are needed to manage the inflation in the economy.

Main Tools For Inflation Management	
Monetary Policy	Monetary Policy tool is employed by the RBI to control the supply of money in the economy. RBI applies the repo rate to control the supply of money in the economy. By increasing the repo rate RBI tries to bring down the rate of inflation in the economy.
Fiscal Policy	Monetary Policy tool is employed by the Govt manage inflation through public expenditure and taxation . Government tries to reduce inflation by raising the tax rates and reducing public expenditure.
Other tools for Inflation Management	
Export policy	The government can temporarily ban the export and imposes Minimum Export Price (MIP) to discourage exports of certain commodities to ensure their availability in the domestic markets. Ex- Recent rice export and onion export ban .
Price control Policy	Under the Essential Commodity Act 1955 , the government can declare a commodity as an essential commodity to ensure supplies to people at fair prices.
Anti-Hoarding and Anti-speculation Policy	The Prevention of Black Marketing and Maintenance of Supplies of Essential Commodities Act, 1980 allows for detention of persons engaged in activities like hoarding, creating artificial scarcities of essential commodities in the market and rigging up of the prices.

Created by Forum IAS

What is inflation? What is the inflation targeting method followed in India?

Inflation- Inflation refers to the **rise in the prices of most goods and services of daily or common use** such as food, clothing, housing, recreation, transport, consumer goods. Inflation measures the **average price change in a basket of commodities and services** over a period of time.

Different Inflation indices used in India

WPI Inflation- WPI captures the **average movement of wholesale prices of goods only**. Its major components are- **Manufactured goods (64.23%) > Primary articles (22.62%)> Fuel and Power (13.15%)**. It is primarily used for ascertaining GDP Deflator in the economy.

CPI Inflation- CPI captures the **movement in prices of goods and services** that are acquired by the households for consumption purposes. Its major components are- **Food and Beverages (45.86%) >Housing (10.07%)> Transport and communication (8.59%)> Fuel and Light (6.84%)**. It is primarily used for **RBI's Inflation targeting** and **measurement of DA** for employees.

Headline and Core Inflation

Headline Inflation- Headline inflation is a **measure of the total inflation** within an economy, **including commodities such as food and energy prices**, which tend to be much more volatile and prone to inflationary spikes. The headline inflation is reported through the **Consumer Price Index (CPI) in India**.

Core Inflation- Core inflation is the persistent component of inflation in India. It attempts to remove the volatile, transitory movements from the CPI. In India, it is **measured by removing Food and Fuel categories from CPI**.

Read More- [Inflation In India- Reasons and Solutions- Explained Pointwise](#)

Present Inflation Targeting Framework in India

The Reserve Bank of India is the **authority to control inflation** under **RBI Act 1934**. Presently, the RBI targets headline CPI inflation as part of its 'inflation targeting' mandate.

Inflation Targeting Regime of RBI

Began in 2016. Central govt fixes the target for **RBI's Monetary Policy Committee for 5 years.**

RBI has to retain the headline inflation **4%, with a tolerance band of +/- 2 percentage till March 2026.**

Economic survey has recommended shifting from 'headline' to 'core inflation' by removing the food component. The economic survey contends that the food price fluctuations are 'transitory' in nature. That means that it's increase is inevitably followed by a downward movement.

What are the concerns regarding Economic survey's recommendation for inflation management?

1. Neglect of economic reality- In India, **food accounts for nearly 50% of Indian household expenditure**. It is crucial to most people's cost of living. Ignoring food prices in inflation targeting would lead to **neglect of a major economic concern for a large portion** of the population.

2. Transitory Fluctuations of food prices is a misconception in India- Contrary to claims that food price fluctuations are temporary, **food inflation in India has been persistent for over a decade**. This indicates a structural problem, and removal of food inflation from inflation targeting will not solve the problem.

3. Interdependence of Food and Core Inflation- Food prices influence wages, which in turn impact core inflation. Hence, it would be **difficult to control core inflation independently of food prices**.

4. Misguided Policy- Exclusion of food prices from the inflation target could leave India vulnerable to rising food costs. This would **undermine the standard of living for a large segment** of the population.

5. Ineffectiveness of Interest Rate Adjustments- Raising interest rates have not led to curbing of core inflation but has instead exacerbated it by increasing the costs for firms. This has led to higher prices of the products and higher inflation in the economy.

What are the other challenges in Inflation management in India?

1. Monetary Policy singular focus on demand side- RBI's monetary policy targets only demand side constraints. It **faces the problem of tackling supply shocks** originating from food and oil.

2. Flawed Model of Inflation targeting- Monetary Policy model used for Inflation management in India is **not statistically validated** for Indian data. The current model of Inflation targeting is based on the assumption that **inflation means overheating the economy- that is increased output greater than natural level output**. However, In India it is impossible to observe the actual level of output in an economy. Hence, setting policy rates based on the assumption that the economy has overheated is unscientific.

3. Failure in addressing supply shocks- Adoption of a myopic vision in inflation management by **focussing on export ban of agricultural products** (like wheat, rice, onions), leads to increased inflation. Export bans induce fear and panic in the domestic market, leading to rise in stock holdings, which ultimately result in price rise.

4. Exclusive Focus on Inflation slows down growth- RBI's current mandate of inflation management is too **singularly focused on controlling inflation**. Inflation management has **negatively impacted GDP growth**. High policy rates (repo) maintained to control inflation affected the cost of domestic capital. It led to a decline in investment rate, thereby resulted in less GDP. For ex- Since 2016 (after inflation rate targeting was institutionalised), there has been a steady increase in repo rates, and a steady decline in GDP growth.

5. Ignoring the Global Nature of inflation- Inflation is global in nature, **as the price level of a good is determined by millions of producers across the world**. Hence, solely targeting inflation management is not good for the health of the economy, as certain prices of goods are beyond our control.

What should be the Way Forward?

1. Increasing agricultural production- We must focus on **improving agricultural productivity** and **controlling food prices** through supply-side measures to address inflation in India.

2. Release Excess Buffer Stocks- The government holds more than 40 million tonnes of rice, much above the buffer stock norms of 13.5 MT. This excess stock **should be unloaded by Food Corporation of India** in the open market at reasonable prices. This will cool down the food inflation.

3. Enhancement of Processing Capacity- About **10-15 percent of perishable items like tomatoes and onions should be processed**. The availability of alternatives like tomato paste and onion powder will help to stabilize prices.

4. Adjustment of Import Duties- Import duties on items like **wheat should be reduced**, as cheaper imports can help control domestic prices.

5. Updation of the CPI Basket Weights- The weight of food and beverages in the CPI basket **should be adjusted to reflect current realities** as the weights are based on the 2011 consumption survey.

6. Greater Tolerance of Higher levels of Inflation- Since Inflation is a global issue, there must be greater tolerance for higher levels of inflation either by adjusting the acceptable range of inflation upwards, or by extending the period over which the MPC has to meet its inflation target.

Read More- [The Hindu](#)

UPSC Syllabus- GS 3- Indian Economy- Inflation and its management

Lateral Entry into Civil Services- Rationale and Criticisms- Explained pointwise

The UPSC has brought the **issue of lateral entry into civil services back into focus** by inviting applications for **45 posts**, from **talented and motivated Indian nationals** for the roles of Joint Secretary, Director, and Deputy Secretary in 24 Union government ministries. However, opposition parties have **criticized the policy of lateral entry into civil services**, for lacking reservations for SC, ST, and OBC candidates.

In this article, we will delve into the issue of lateral entry, and the rationale behind its introduction. We will also focus on its criticisms, and look into the measures that need to be taken to address the concerns.



Source- The Indian Express

What is Lateral Entry? What is the background of its introduction?

Lateral entry into civil services in India refers to the **recruitment of professionals from the private sector at the middle and senior management levels of the Government**. This initiative aims to bring in specialized skills and expertise that may not be present within the traditional bureaucratic framework.

The lateral entry appointments are done on a contractual basis. The appointments are mainly made to the post of Joint Secretary, Deputy Secretary and Director positions in the Central secretariat. These 'lateral entrants' become a part of the central secretariat, which, till now, had only career bureaucrats from the All India Services/ Central Civil Services.

Background

of

Introduction

The Constitution Review Commission recommendation of 2002	It advocated for lateral entry. It suggested that lateral entry, could help in specializing some generalist roles by bringing in professionals from the private sector.
The 2nd Administrative Reform Commission recommendation of 2005	It recommended an institutionalized and transparent process for lateral entry at both the Central and State levels. It highlighted the necessity of infusing new talent into the bureaucracy to enhance governance and policymaking.
NITI Aayog 3 year action agenda	NITI Aayog supported the idea of lateral entry in its three-year Action Agenda. It emphasized that lateral entry has the potential to improve governance by incorporating specialized knowledge and skills from the private sector.
Sectoral Group of Secretaries (SGoS) on Governance	This group endorsed the lateral entry system. It argued that lateral entry could enhance the effectiveness of public services by introducing professionals with relevant expertise.

Implementation of Lateral Entry in India

Process of Lateral Entry- Union Public Service Commission (UPSC) advertises vacancies for lateral entry. Applications are invited for lateral entry against these advertised posts. After a selection process instituted by the UPSC, individuals are recommended for appointment.

63 appointments have been made through lateral entry in the last five years by the government.

2018	The first round of lateral entry began in 2018. These were for the Joint Secretary-level posts. After a selection process by the UPSC, nine individuals were recommended for appointment to nine different Ministries/Departments in 2019.
2021	Another round of lateral entry was made in 2021.
2023	Two more rounds of lateral entry were made in 2023.

What is the rationale behind Lateral Entry into civil services?

1. Need for specialists and fresh talent- The inclusion of **professionals from diverse backgrounds** can help in invigorating the **bureaucracy with new ideas and innovative approaches**. **For ex-** The generalist civil servants often lack domain specific knowledge and fail to incorporate the views of other stakeholders such as private sector, NGO's etc.

2. Meeting the shortage of Personnel at the centre- The **Baswan Committee** (2016) had pointed to the **unwillingness of large states** like Bihar, Madhya Pradesh and Rajasthan in **sponsoring officers for central deputation**, due to deficit of officers in their states. The lateral entry of officers can help in addressing the shortage of staff at the central level.

3. Strengthening of participatory Governance- The lateral entry also aims to strengthen participatory governance, by **providing the private sector** and **NGOs** an **opportunity** to participate in the **governance process**.

4. Improvement of Governance efficiency- The recruitment of private individuals as consultants, officers on special duty by Central government ministries has given fruitful results in the past. **For ex-** Appointment of **Montek Singh Ahluwalia** (Planning Commission), **Vijay Kelkar** (Ministry of Finance) and **Parmeshwaran Iyer** (Swacch Bharat Mission).

Thus, there is a need for encouraging private participation at middle-level positions to improve efficiency.

5. Fixing the flaw in public service recruitment- There are many potential and good administrators who **do not participate in examinations conducted by the government during their young age**. Lateral entry provides an opportunity for them, to be part of the governance machinery and contribute to nation building.

6. Promotion of Healthy competitive spirit- Lateral entry aims to promote a sense of healthy competition in bureaucracy. It **induces generalist civil servants to develop expertise** in areas of their choice.

7. Bridging Public-Private Gap- After the economic reforms in 1991, the **Indian government has taken up the role of a facilitator of public services**. **Private sector** has assumed a **greater responsibility** for capital expenditure, investment, and development.

Lateral entry provides a platform for **greater collaboration between the government and private sector**. It allows stakeholders like industry experts and non-profits to participate more directly in the governance process.

8. Inline with Global best practices- Countries like United States, Belgium, the UK, Australia and New Zealand have **institutionalized the practice of lateral entry**, as a permanent part of their system. In countries like the United Kingdom and Ireland, the selection of officers is on the criteria of **work experience in the civil** as well as the **private sector**.

What are the criticisms of lateral entry system?

1. Ambiguity in recruitment process- There are concerns regarding the ambiguities in the recruitment process of lateral entrants such as **determination of vacancy, shortlisting of candidates, evaluation procedure** etc.

2. Sidelineing of reservation policy- The **vulnerable sections like SCs, STs, OBCs** etc. have criticized the process for sidelining the reservation policy, as there is **no provision of reservation in appointment of lateral entrants**. **For ex- Non implementation of 13 point roster system** of reservation in lateral entry.

3. Lack of Familiarity with Bureaucratic Processes- The civil servants reaching top positions like Joint secretary level, serve 10-15 years at ground level and are fully well-versed with the bureaucratic process. On the other hand, the lateral entrants, hired based on their theoretical (subject) experience, often lack a deep understanding of the bureaucratic system and its established protocols.

4. Short Tenure and Impact- Lateral entry positions are typically contract-based for a limited duration (three to five years). The lateral entrants find it **difficult to assimilate in the bureaucratic structure within their short contractual time**. This also reduces the probability of delivering optimum results within due time.

5. Potential Conflict of Interest- There are concerns regarding potential conflict of interest arising in policy formulation. **Private people may be focused on profit maximization**, while **government officials aspire to public service**.

6. Potentially Discouraging for Motivated Civil Servants- Large-scale lateral induction may discourage motivated and talented officers by signalling that the current bureaucrats are not competent to run the government.

What should be the way Forward?

- 1. Maintenance of balance-** The government needs to maintain a fine balance between the career civil servants and the lateral entrants. The number of lateral entrants should be kept **optimal and minimal**.
- 2. Phased Implementation-** The lateral entry program should be implemented in a phased manner by **taking feedback and outcomes from initial recruitments**. This will ensure that the integration of private sector professionals is smooth and effective.
- 3. Implementation of reservation policy-** The lateral entry system should aim to implement the **'13 point roster system'** which provides for reservation. This will address the concerns of the SC, ST and OBC communities, regarding their perceived marginalisation.
- 4. Clearly defined recruitment rules and procedures-** The recruitment and service rules for lateral entry posts need to be clearly defined and made incentive-compatible. **For ex- A entry-level test to check the analytical skills, judgement capabilities, and personality traits.**
- 5. Steps for assimilation with bureaucratic structure-** **A greater weightage** can be provided for **'prior consultation work'** with the government, as these people will face less difficulty in assimilation with the bureaucratic structure.
- 6. Exploration of Allocation of cadres-** The option of allocating cadres for lateral entrants can be explored. These lateral entrants can be put for at least one year under State governments, for field level training and exposure.
- 7. Restriction to few technical sectors-** The appointment should **be restricted to sectors of finance, economy and infrastructure**, which are **technical in nature**. It should not be extended to Home, Defence, Personnel etc.

Conclusion

The performance of the Indian bureaucratic structure can definitely be complemented with the lateral entry process. Lateral entrants can complement the regular government officials by bringing in new outside talents, pushing the government officials to work more for public welfare, etc. But a definite policy is the need of the hour to make the system of lateral entry more inclusive, transparent and effective.

Read More- [The Indian Express](#)

UPSC Syllabus- GS 2 – Governance – Role of Civil Services in a Democracy

Dark Patterns- Concerns and Challenges- Explained Pointwise

According to a **recently released report by the Advertising Standards Council of India (ASCI)** and product design studio Parallel, **many top Indian apps have been found to employ dark patterns/deceptive patterns**.

Amid a rise in online shopping and an increase in the number of internet users, which is expected to touch 900 million by 2025, the issue of dark pattern has caught the attention of the government. Department of consumer Affairs notified the **Guidelines for Prevention and Regulation of Dark Patterns 2023**, under the Consumer Protection Act, 2019, for regulation of these deceptive patterns.

Despite the government guidelines and regulation efforts, **dark patterns continue to endanger consumer rights in the digital landscape**.



Types of Dark Patterns

False Urgency	Misleading users into immediate actions by creating a false sense of urgency or scarcity , such as- a. Falsely inflating the popularity of a product or service. b. Misrepresenting the availability of a product or service as more limited than it is.
Basket Sneaking	Inclusion of additional items such as products, services, payments to charity/donation at the time of checkout from a platform, without the consent of the user .
Confirm Shaming	It involves guilt as a way to make consumers obey . It involves criticizing or attacking consumers for not conforming to a particular belief or viewpoint.
Forced Action	This involves forcing consumers into taking an action they may not want to take, such as signing up for a service to access content .
Subscription Traps	This tactic makes it easy for consumers to sign up for a service but difficult for them to cancel it .
Interface Interference	A design element that manipulates the user interface in ways that (a) highlights certain specific information; and (b) obscures other relevant information relative to the other information.
Bait and Switch	This involves advertising one product or service but delivering another product , often of lower quality.

Created By Forum IAS

What are Dark Patterns? What are the different types of Dark Patterns?

According to ASCI definition, Dark patterns are business practices employing elements of digital choice architecture, in particular in online user interfaces, that subvert or impair consumer autonomy, decision making or choice.

Dark patterns are also called deceptive patterns. These patterns are used for **intentionally manipulating** or **misleading users to make certain choices** or **perform specific actions** that may not be in their best interest. These **unethical strategies** are designed to **exploit certain cognitive** and **behavioral biases** to persuade users into purchasing goods and services they would typically not pay for. They downgrade the user experience to benefit the company implementing it.

Harry Brignull coined the term 'dark pattern' in 2010 to describe deceptive strategies used by websites or apps to deceive users.

What are the different types of dark patterns identified by Consumer Affairs Ministry?

The Consumer Affairs Ministry has identified 10 types of dark patterns. These are explained below-

False Urgency	Misleading users into immediate actions by creating a false sense of urgency or scarcity , such as- a. Falsely inflating the popularity of a product or service. b. Misrepresenting the availability of a product or service as more limited than it is.
Basket Sneaking	Inclusion of additional items such as products, services, payments to charity/donation at the time of checkout from a platform, without the consent of the user .
Confirm Shaming	It involves guilt as a way to make consumers obey . It involves criticizing or attacking consumers for not conforming to a particular belief or viewpoint.
Forced Action	This involves forcing consumers into taking an action they may not want to take , such as signing up for a service to access content.
Subscription Traps	This tactic makes it easy for consumers to sign up for a service but difficult for them to cancel it . It is often done by hiding the cancellation option, or requiring complex-multiple steps, or authorization for auto debits for availing a free subscription.
Interface Interference	A design element that manipulates the user interface in ways that (a) highlights certain specific information; and (b) obscures other relevant information relative to the other information. For ex- Highlighting certain parts with contrasting colours, which misdirects a user from taking an action desired by her.
Bait and Switch	This involves advertising one product or service but delivering another product , often of lower quality.
Drip Pricing	It is a deceptive practice where- a. Price details are hidden or revealed subtly during the user experience; b. The final price is disclosed only after purchase , charging more than shown at checkout; c. A product or service is advertised as free without clearly stating that continued use requires in-app purchases ; d. Users are blocked from accessing a paid service unless they make an additional purchase .
Disguised advertisement	A practice of posing, masking advertisements as other types of content such as user generated content or new articles or false advertisements .
Nagging	Overload of requests, information, options, or interruptions ; unrelated to the intended purchase of goods or services, which disrupts the intended transaction.

Some examples of prominent companies using Dark Patterns

Amazon- Amazon came under fire in the European Union for its **confusing, multi-step cancelling process (subscription trap)** in Amazon Prime subscription. However, in 2022, Amazon made its cancellation process easier for online customers in European countries.

YouTube- YouTube nags users to sign up for YouTube Premium with pop-ups (**nagging**).

Indigo airlines- Indigo airlines have been found to be creating **false urgency in booking of seats from their app**, and **Interface interference** (the option to skip is placed in the top right corner and displayed in a tiny font).

What are the concerns with dark patterns?

1. Harm to consumer autonomy- These **compromise consumers' personal autonomy** as they lead consumers to make choices they may not otherwise have made. These deceptive patterns often **provide the illusion of control** rather **than actual control** to consumer.

2. Financial loss to the consumer- Deceptive patterns such as **basket sneaking, drip pricing or false urgency**, lead to financial losses for the consumers, as these lead to more spending than their intended expenditure.

3. Harm to customer Data Privacy- **Privacy-intrusive deceptive patterns** like **nagging** and **confirm shaming**, force consumers into **accepting privacy-intrusive settings**. Consequently, consumers unintentionally disclose more personal data than intended. This potentially **exposes them to additional risks** and **violates their right to privacy (Article 21)**.

4. Psychological harm and time loss- These patterns cause **psychological harm** like emotional distress, feelings of shame and frustration.

5. Limits User-Centric Innovation- Reliance on deceptive patterns for short-term gains, stifles innovation in user-centric design. Businesses start prioritizing deceptive practices over creating genuinely valuable and user-friendly products. **For ex- False urgency practice in seat booking started gaining prominence in Indian airlines industry.**

6. Social Backlash and brand erosion- These deceptive patterns lead to **negative publicity**, especially in the age of social media where users can share their experiences widely. Public backlash can damage a company's brand image.

7. Distorted competition- Firms employing dark patterns obtain a competitive advantage over firms that do not employ these patterns, without offering better quality goods or services. **For ex- Generation of higher revenue through basket sneaking, subscription traps** etc.

What initiatives have been taken for regulation of dark patterns?

Initiatives in major countries

Recently, regulators in jurisdictions such as the European Union, USA and UK have acted against deceptive patterns.

EU	In 2022, the European Data Protection Board released guidelines that gave designers and users of social media platforms practical guidance, on how to spot and avoid dark patterns that are in violation of General Data Protection Regulation (GDPR) laws .
US	In 2021, California passed amendments to the California Consumer Privacy Act , banning dark patterns that made it difficult for consumers to exercise legal rights, like opting out of the sale of their data.
UK	The Competition and Markets Authority (CMA) of the U.K. has listed different pressure-selling techniques (false urgency) that it believes violate consumer protection laws and for which actions will be taken.

India's initiative

Guidelines for Prevention and Regulation of Dark Patterns (2023)	These guidelines aim at preventing and regulating the deceptive patterns under the Consumer Protection Act, 2019 . These guidelines include a list of identified dark patterns in user interface (UI) and user experience (UX). The Central Consumer Protection Authority (CCPA) is responsible for enforcing these guidelines.
Advertising Standards Council of India (ASCI) Guidelines	The Advertising Standards Council of India (ASCI), an industry body, has also come up with guidelines against the use of deceptive patterns.

What are the challenges in regulation of dark patterns?

- 1. Lack of Specific Regulations-** Most countries **currently lack specific laws targeting dark patterns**, and instead, existing consumer protection and data protection laws are applied for deceptive pattern regulation.
- 2. Complexity of Legal Definitions-** Determination what constitutes a dark pattern is often complex, as it is **at times challenging to determine the threshold** at which the pattern crosses from controversial marketing technique to illegal practice.
- 3. Evolving Nature-** The tactics used in dark patterns are continually evolving. This makes it difficult for regulatory frameworks to keep pace, and deal with the menace of these deceptive patterns. Further, there are **insufficient case laws available for the regulators**, to draw upon previous rulings and guide enforcement actions.
- 4. Enforcement Challenges-** Regulatory bodies **lack the resources** to monitor and address dark patterns effectively.
- 5. Low Consumer Awareness and Reporting-** There is low consumer awareness regarding the menace of dark patterns, which leads to **underreporting of incidents**.

Read More- [On Regulating 'Dark Patterns' – Battling dark patterns](#)

What Should be the Way Forward?

- 1. Empowering users-** User must be empowered to deal with dark patterns, which will enhance their ability to avoid being deceived.
 - a. Equipping them with tools and resources to make informed choices-** Use of **browser extensions, apps or plugins** that **detect and block dark patterns**.
 - b. Encouragement for reporting of cases-** Users should be encouraged to report cases of dark patterns they encounter. Clear channels must be provided to users to provide feedback and report manipulative practices.
- 2. Industry self-regulation-** Online platforms should establish ethical design guidelines that discourage the use of dark patterns. **For ex-** Encouraging **responsible design practices** and **conducting independent audits** to identify and rectify dark pattern issues.
- 3. Conscious score and ethical design-** The designers of the apps must employ ethical design practices and provide a 'conscious score' to their apps, to avoid dark patterns.
- 4. Streamlining enforcement-** The Central Consumer Protection Authority (CCPA) must be provided adequate financial and technical resources, to deal with the cases of dark patterns.

Read More- [The HinduBusinessline](#)

UPSC Syllabus- GS 3- Advancements in the field of IT

Ethanol Blending Programme (E20 Blending)- Significance and Challenges- Explained Pointwise

India is on course to achieve its E20 Blending target (blending 20% of petrol with ethanol by 2025-26) as part of its Ethanol Blending Programme. The National Policy on Biofuels 2018, had initially set an indicative target of achieving 20% ethanol blending (E20) by the year 2030. However, the target of E20 blending, was advanced to 2025-26 after the NITI Aayog released the expert committee report on ethanol blending titled 'Roadmap for Ethanol Blending in India 2020-25'.

Going by the milestones on blending percentages crossed so far and the increase in ethanol production capacity, India is on track to achieve its blending target. However, the food versus fuel equation continues to hang over the ethanol economy.



» Biofuels are the fuel derived from the biomass of plants or animal wastes. It is commonly produced from corn, sugarcane and animal waste like cow dung.

» Generation of biofuels

1st Generation Biofuel	Produced from edible items like sugar, corn, starch.	Higher carbon content and emit greenhouse gases.
2nd Generation biofuel	Produced from leftover food crops like rice husk, wood chips	Greenhouse content less than 1st generation biofuel
3rd Generation biofuel	Produced from microorganisms like algae.	Carbon Neutral (CO ₂ emitted=CO ₂ sequestered)
4th Generation biofuel	Produced from genetically engineered crops like GM crops	Carbon Negative

» Common biofuels used

Bioethanol	Produced from corn and sugarcane using fermentation process. E10 is the most common blend in which 10 per cent composition is Ethanol
Biodiesel	Produced from vegetable oils like soybean oil or palm oil, vegetable waste oils and animal fats using transesterification process.
Biogas	Produced from organic matter like sewage from animals and humans by anaerobic decomposition .

Created- Forum IAS

What is the Ethanol Blending Programme? What is the Status of the targets?

Ethanol Blending Programme- The Ethanol Blended Petrol (EBP) program was launched in **January 2003**. The program seeks to **achieve blending of Ethanol with petrol** with a view to reduce pollution, conserve foreign exchange and increase value addition in the sugar industry enabling them to clear cane price arrears of farmers.

As per the programme targets, India has to achieve **10% blending rate (E10)** by 2021-22 and **20% blending rate (E20)** by 2025-26. The average ethanol blending in petrol has risen from **1.6%** to **11.8%** between 2013-14 and 2022-23.

Sources of Bio Ethanol Production in India

Sugarcane	<p>Sugarcane gives rise to three main related products, in the order of decreasing sugar content.</p> <p>a. Sugarcane juice and syrup b. B-heavy molasses c. C-heavy molasses</p> <p>(Sugarcane juice and syrup, and B-heavy molasses typically go into making sugar, as they have higher sugar content.)</p> <p>In a bid to up fuel ethanol production, the government had started permitting the diversion of Sugarcane juice and syrup, and B-heavy molasses. However, in December 2023, the government restricted the diversion of Sugarcane juice, syrup, and B-heavy molasses, over fears of falling sugar stocks.</p>
Maize	The use of maize for ethanol blending has been increasing to produce more fuel ethanol to compensate for restrictions on using Sugarcane juice, syrup, and B-heavy molasses .
Surplus rice & damaged grains	Surplus rice and damaged grains have been permitted by the government for use as a feed in grain-based distilleries.

Ethanol for blending

With the government restricting the use of B-heavy molasses and sugarcane juice for ethanol production from December 2023, grain-based ethanol production has increased to maintain blending percentages

Ethanol supplied to oil marketing companies

Supply-year	C-heavy molasses	B-heavy molasses	Sugarcane juice	Surplus rice	Damaged grains	Maize	Total in litre crore; blending % in brackets
2019-20	74	68	15	0	16	0	173 (5.00)
2020-21	39	183	39	2	39	0	302 (8.10)
2021-22	11	265	85	49	24	0	434 (10.02)
2022-23	6	235	128	74	32	32	506 (12.06)
2023-24*	39	95	56	0	76	135	401 (13.00)

Supply years are December-November, December to October for 2022-23 and November to October for 2023-24

*Data available only for November-June

Source- The Hindu

What is the significance of Ethanol Blending Programme?

- 1. Bolsters India's Energy security-** India has a high dependence on imported fuel to meet its energy needs (**In 2021-22, 86 percent of consumed fuel was imported**). Such high import dependence, makes India's energy security vulnerable to global events like the **Russia-Ukraine war** or **oil-cut decisions of OPEC countries**. Ethanol blending programme reduces India's dependence on imported oil, and in turn bolsters the energy security.
- 2. Import Substitution-** Ethanol Blending programme can help in strategically reducing the dependence on imported fossil fuels and conserve foreign exchange reserves. **According to NITI Aayog, India's crude oil import bill will fall annually** by about **\$4 billion** by the achievement of E20 target.
- 3. Reduction of emissions-** Use of ethanol-blended petrol decreases emissions such as carbon monoxide (CO), hydrocarbons, and nitrogen oxides. As per **NITI Aayog**, petrol blended with 20% ethanol would reduce **carbon monoxide emissions** by **50% in two-wheelers** and **30% in four-wheelers**.

4. Bolstering Rural Economy and Farmer's Income- It bolsters the rural economy by promoting the cultivation of various crops (like maize, paddy) through an assured market. Under Ethanol Blending Program, **Oil Marketing Companies (OMCs)** have paid **sugar mills nearly Rs 81,796 crore for ethanol supplies in the last seven years** (till 2022), which has helped mills to clear farmers' dues.

5. Job Creation- As per the Asian Development Bank (**ADB**), the ethanol blending programme can help in **generating about 18 million rural jobs in India**.

Read More- [Significance of Biofuels-Explained,Pointwise](#)

What are the Challenges in achieving 20% Ethanol Blending in India?

1. Rise in import of maize- Government restricted the diversion of Sugarcane juice, syrup, and B-heavy molasses for ethanol production, over fears of falling sugar stocks. This reduction has increased the import of maize from **\$39 million in 2022-23** to **\$103 million in FY 2024**.

As per NITI Aayog's estimates, ~ 4.8 million hectares will have to be added to maize cultivation area to meet the 20% target. This additional area is almost half of the current maize cultivation area in India.

2. Financial vulnerability of Sugar Mills- The lack of financial stability of the sugar mills to invest in biofuel plants, and their **heavy concentration in certain regions**, poses a significant challenge to the ethanol Blending Programme.

3. Barriers to Inter-state movement of ethanol- The central government amended the **Industries Development and Regulations Act** to ensure smooth implementation and transportation of Ethanol across the country. But only **14 states have implemented the amended provisions**. As a result, states that produce ethanol more than the requirement for blending cannot transport the Ethanol to other states.

4. Focus of states on ethanol for liquor production- The use of ethanol for fuel blending has failed to attract attention in states like Tamil Nadu. The **Liquor sector remains a highly lucrative market for ethanol distilleries**.

5. Modification of existing petrol engines to use E20- The estimated petrol vehicles stock in India is 212.7 million as of March 31, 2023 (176.2 million two-wheelers, 21.8 million three-wheelers, and 14.7 million four-wheelers). The modifications entail significant costs and skilled manpower. This can create considerable disruption in the economy.

What are the concerns with higher ethanol Blending in India?

1. Impact on India's Food security- The diversion of food crops, such as rice for ethanol production, will hamper India's food and nutritional security ambitions. **For ex-** In 2022, **close to 1 million metric tonnes of rice fit for human consumption** from FCI's stocks **was sold at subsidised prices** to produce ethanol.

2. Diversion of Agricultural Land- Excessive blending target can lead to the conversion of agricultural land used for growing food crops, to **cultivating biofuel feedstocks** like **sugarcane, corn, or oilseeds**.

3. Impact on Water Availability- Incentives for higher ethanol blending might encourage increased sugarcane and rice cultivation, which are water-guzzling crops. According to TERI, **400 billion litres of water would be needed additionally**, which can exacerbate concerns about agricultural sustainability.

4. Impact on Soil Health- The practices of monocropping for biofuel feedstock crops (such as rice, sugarcane) can deplete the nutrients in the soil and make it infertile.

5. Increase in Import of Agricultural Crops- The use of crops like maize for ethanol blending **increases the import bill** and **impacts related agricultural sectors** such **poultry sector** and **livestock feed**.

What should be the Way Forward?

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- 1. Diversification to higher generation of biofuels-** The government should diversify and move to 2G and 3G biofuels, that are more benign in terms of impact on food security.
- 2. Increase in grain based distilleries-** According to the [roadmap for achieving ethanol blending targets](#), prepared by the Niti Aayog, India must invest to increase the capacity of [Grain-based distilleries from 258 to 740 crore litres](#).
- 3. Interest Subvention programmes-** Two interest subvention programmes should be provided for [establishment of new distilleries](#) and [ramping up of ethanol generation capacity](#).
- 4. Streamlining supply chain-** The Oil Marketing Companies (OMCs) should sign [more long-term contracts with distilleries](#). The inter-state movement of ethanol should be facilitated to streamline supply-chain.
- 5. Promotion of maize cultivation in rotation with sugarcane-** Maize is not water intensive. However, it degrades soil and cannot be the sole crop either. It should be cultivated in rotation with sugarcane to ensure that soil fertility is not degraded.
- 6. Increase in fuel ethanol pricing-** Increased price support for fuel ethanol can decrease its diversion towards liquor use.

Read More- [The Hindu](#)

UPSC Syllabus- GS 3 Environment Conservation

India-Malaysia Relations- Significance and Challenges- Explained Pointwise

During the recent visit of the Malaysian PM Anwar Ibrahim, India-Malaysia relations were upgraded to '[Comprehensive Strategic Partnership](#)'. It was noted during the visit that [India and Malaysia have close similarities](#) as both are '[multicultural, multi-ethnic and multi-religious countries](#)'. Several key agreements were signed during the visit, providing impetus for the deepening of India-Malaysia relations.

However, there are also serious challenges between India and Malaysia. In this article, we will look at the history of India-Malaysia Relations, significance of the relations and the way forward.

Key Takeaways from the recent India-Malaysia Bilateral Summit

1. **Comprehensive Strategic Partnership-** The existing **Enhanced Strategic Partnership**, which was established in 2015, was upgraded to a **Comprehensive Strategic Partnership**.
2. **Key Agreements-** Multiple agreements were signed covering critical areas such as **worker mobility, digital technology, culture, tourism, sports, and education**.
3. **MoU on Recruitment, Employment, and Repatriation of Workers-** MoU was signed to streamline the processes related to the movement and management of workers between the two countries.
4. **MoU on Ayurveda and Traditional Systems of Medicines-** MoU was signed for Co-operation in the field of Ayurveda and other traditional systems of medicine. India will establish an **Ayurveda Chair at Universiti Tunku Abdul Rahman in Malaysia**, for promotion of traditional medicine education and research.
5. **BRICS Membership Support-** India has agreed to support **Malaysia's interest in joining BRICS**.
6. **ASEAN-India Trade in Goods Agreement (AITIGA)-** India and Malaysia have agreed to support and expedite the review process of AITIGA, and make it more effective and business-friendly. The aim is to conclude the review by 2025 and enhance supply chain connections between India and ASEAN countries.
7. **Strategic Rice Export Agreement:** India has agreed to a **one-time export of 2,00,000 metric tonnes** of white rice.
8. **Discussion on Extradition and Counter-Extremism-** Both leaders emphasized the need to **tackle extremism and radicalism**.
9. **Cooperation in Digital Technologies-** India and Malaysia have agreed to work on connecting **India's Unified Payments Interface (UPI)** with **Malaysia's PayNet** for **digital transactions**.

What is the History of India-Malaysia Relations?

Historical Ties-

- a. **Establishment of Relations-** The historical ties between India and Malaysia trace back over a millennium. The relation was **significantly influenced by the Chola Empire** (9th-13th centuries). The Cholas established **extensive maritime trade routes** that connected South India with the Malay Peninsula. It fostered close cultural and economic exchanges.
- b. **Rule over the Malaysian Territory-** Under the reign of emperors like Rajaraja Chola I and Rajendra Chola I, the Cholas established control over parts of Southeast Asia, including present-day Malaysia.

Post Independence Ties

India and Malaysia share close cooperation since the independence of both nations. The major phases of relations are mentioned below-

Establishment of Relations	India established diplomatic relations with the Federation of Malaya (predecessor state of Malaysia) in 1957 .
Phase of Strong Relations	India-Malaysia enjoyed a strong relationship in the 1960s as a result of the personal friendship between Prime Ministers Nehru and Tunku Abdul Rahman Putra . India and Malaysia have developed close political, economic and socio-cultural relations.
Enhanced Strategic Partnership	India-Malaysia relations were elevated to Enhanced Strategic Partnership during the visit of PM Narendra Modi in 2015.

What are the areas of cooperation between India and Malaysia?

1. Geopolitical Cooperation- India and Malaysia are members of key global forums like the **Commonwealth of Nations, NAM, G-15, and G-77**. This forms a strong foundation for close geo-political mutual cooperation. Further, India and Malaysia closely cooperate through **ASEAN plus** and **East Asia Summits**.

2. Geo-strategic Cooperation-

a. India and Malaysia have steadily expanded their defence ties since signing a **defence cooperation memorandum in 1993**.

b. India and Malaysia engage in regular defence cooperation meetings, and joint military exercises. **For ex- Exercise Harimau Shakti (Military), Exercise Samudra Lakshmana (Navy), and Exercise Udara Shakti (Air Force)**.

3. Geo-economic Cooperation-

a. Bilateral trade between India and Malaysia has reached a **record high of USD 19.5 billion**. Malaysia is India's 13th largest trading partner.

b. As per official figures (DPIIT), **Malaysia ranks as the 26th largest investor in India** with FDI inflow of US\$1.16 billion during the period April 2000 to September 2022.

c. **India is a significant investor in Malaysia**, particularly in sectors like technology, manufacturing, and services. More than 150 Indian companies, including 61 Indian joint ventures and 3 Indian Public Sector Undertakings, operate in Malaysia.

d. **Exports from India-** It Includes mineral fuels, aluminium, meat, iron and steel, copper, organic chemicals, and machinery.

e. **Imports to India-** It Includes palm oil, mineral fuels, electrical machinery, animal or vegetable fats, and wood.

f. **ASEAN-India Business Summit 2023** celebrated 30 years of ASEAN-India Engagement, with significant participation from Indian and Malaysian stakeholders.

4. Diaspora Cooperation- Malaysia is home to over **2.95 million large Indian diaspora** and **the second-largest Persons of Indian Origin (PIO)** community in the world after the US.

5. Cultural Cooperation- India and Malaysia share close cultural Cooperation, which are explained below-

a. Institutional Cooperation- The **Indian Cultural Centre Kuala Lumpur**, established in **2010** and **Netaji Subhash Chandra Bose Indian Cultural Center (NSCBICC)** offers classes in Carnatic vocal music, Kathak dance, Yoga, and Hindi, with teachers from both India and Malaysia.

b. Literary Cooperation- **Hikayat Seri Rama** (Malay literary adaptation of the Hindu Ramayana epic) reflects local adaptations, and close literary cooperation. Ramayana's themes are reflected in local stories, arts, and performances of Malaysia.

c. Shared Cultural Architecture and craft- The **Sri Veera Hanuman Temple in Malaysia** shows the shared cultural heritage, with its architecture and tales deeply rooted in Indian traditions.

What is the significance of India-Malaysia Relations?

1. Geopolitical Significance- Close India-Malaysia relations **aligns with India's Act East Policy**. Close cooperation with Malaysia, provides India the **strategic pivot towards the ASEAN region**, and enhance its influence and connectivity in South East Asia. Deepened India-Malaysia relations also forms an important pillar of India's effort of outreach to countries of the Global South.

2. Geostrategic Significance

a. Close Cooperative Mechanism between India and Malaysia on the **Straits of Malacca and Singapore (SOMS)**, is key for the **establishment of rule based order in Indo-Pacific**.

b. Close India-Malaysia relations will **enhance interoperability** and **address regional security challenges** like counter-terrorism and extremism in South East Asia.

3. Geo-economic Significance-

- a. **Comprehensive Economic Cooperation Agreement (CECA)** between India and Malaysia will provide a boost to India's effort for achievement of its foreign trade target of \$2 trillion in merchandise exports by 2030.
- b. The exploration of option of Local Currency Trade between the Indian Rupee (INR) and Malaysian Ringgit (MYR), will help in reducing reliance on the US dollar and enhancing economic resilience.

4. Cultural Significance- The close people to people connect and the presence of large Indian diaspora in Malaysia can be **leveraged for increasing the cross-border investment and trade**.

What are the Challenges in India-Malaysia Relations?

- 1. Extradition of Zakir Naik-** Malaysia's **rejection of repeated India's request for extradition of Zakir Naik**, who is wanted in India on hate-speech and money laundering charges, is one of the prominent challenges in India-Malaysia relations.
- 2. Malaysia's criticism of India's internal Policies-** Malaysia's strong criticism of Indian Government's Policies like the **Citizenship Amendment Act**, and the **reorganisation of Jammu and Kashmir**, has created further wedge between India and Malaysia.
- 3. Economic Challenges-** The economic relationship between India and Malaysia faces challenges such as **higher import tariffs** and **trade restrictions**. This has impeded the growth of bilateral trade between India and Malaysia.
- 4. Diaspora Challenges-** There are concerns of **illegal immigration**, **exploitation of workers**, and **human trafficking** surrounding the Indian diaspora. The **detention of hundreds of Malaysians during the COVID-19** pandemic also created tensions between India and Malaysia.
- 5. Increasing Chinese Influence-** The **increase in Chinese influence in the politics and economy of Malaysia** creates further geo-political and geo-strategic challenges for India.

What Should be the Way Forward?

- 1. Comprehensive Economic Cooperation Agreement (CECA)-** India and Malaysia must **accelerate the review and amendment of the CECA**, to include emerging sectors such as fintech, semiconductors, and defense. This will help achieve the **target of increasing bilateral trade to \$25 billion**.
- 2. Closer Economic Cooperation-** Efforts like **avoiding double taxation**, **mutual customs assistance**, **improving air connectivity**, and **collaborations among airlines** can boost trade and tourism between India and Malaysia.
- 3. Defense Technology Collaboration-** Fostering partnerships in defence technology and research, **can enhance both nation's defence capabilities** and will contribute to regional stability in Indo-Pacific.
- 4. Focus on ASEAN Integration-** India must leverage Malaysia's position in ASEAN to enhance its engagement with the region. This will help in **aligning the relations with India's Act East Policy** and supporting the ASEAN centrality.

Read More- [The Hindu](#)

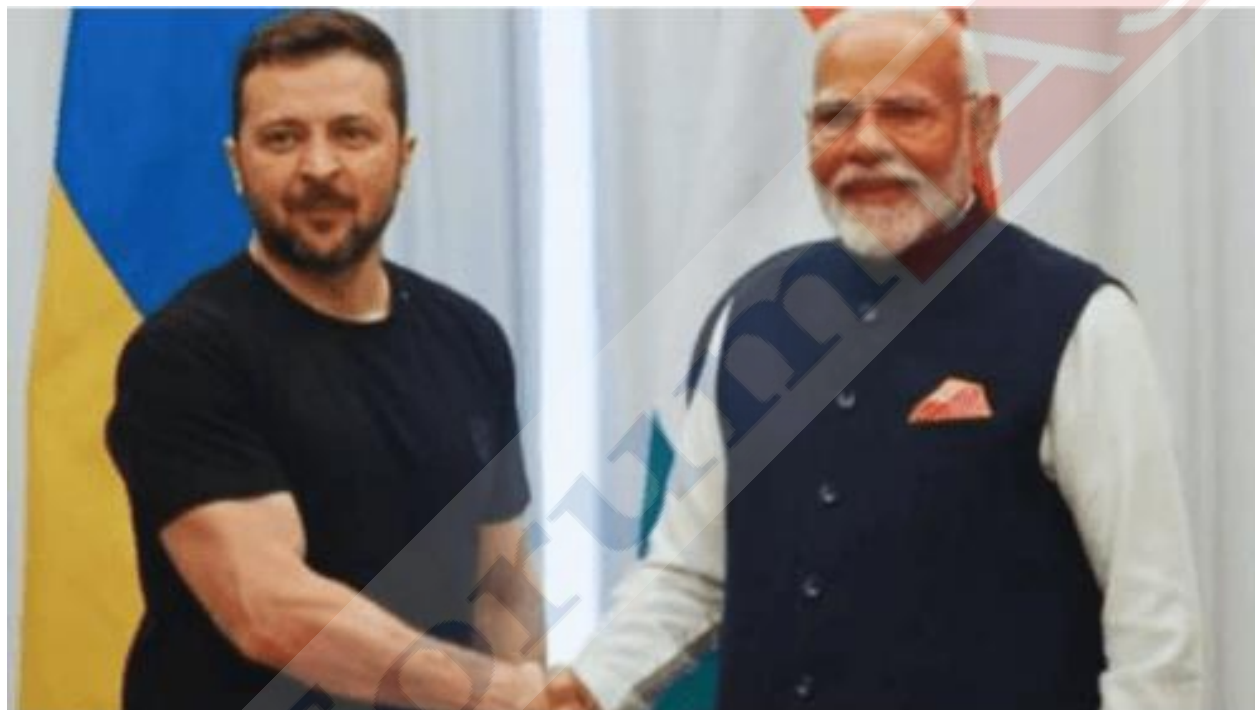
UPSC Syllabus- GS 2- India and its Neighbourhood relations

India-Ukraine Relations- Significance and Challenges- Explained Pointwise

India-Ukraine Relations has garnered significant attention, in the wake of Indian Prime Minister's historic visit to the war torn country. PM Narendra Modi is the first Indian prime minister to visit Ukraine after diplomatic relations were established between the two countries in 1992.

The visit, which aims at deepening of India-Ukraine Relations, also sets to underscore India's consistent position on the Russia-Ukraine conflict. India has always emphasized that lasting peace can only be achieved through dialogue and diplomacy.

In this article, we will delve in detail into the India-Ukraine Relations. We will also look into the areas of cooperation, the challenges in the India-Ukraine and the significance of this historic visit.



Source- Indian Express

What is the Historical Background of India-Ukraine Relations?

India has an extensive bilateral relationship with Ukraine, which spans across all spheres of cooperation.

<p>Establishment of Diplomatic Relations</p>	<p>India was one of the first countries to recognize Ukraine, after the disintegration of the Soviet Union. India established diplomatic relations with Ukraine in January 1992, with the opening of The Embassy of India in Kyiv in May 1992. Ukraine opened its Mission in Delhi in February 1993, which was its first mission in Asia.</p>
<p>Phase of Engagement but lack of going full-steam</p>	<p>Even though India and Ukraine cooperated in a range of domains ranging from defence to diaspora, however, India's bias towards Russia prevented New Delhi from going full steam on its engagement with Ukraine.</p>

Decline in bilateral cooperation after the Russia-Ukraine War	There has been decline in the bilateral relations after Russia-Ukraine war. For ex- The volume of India-Ukraine trade dropped from \$3.39 billion in 2021-22 to \$0.71 billion in 2023-24.
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The visit aims to turn around the declining bilateral cooperation and deepen India-Ukraine relations.

What have been the areas of cooperation between India and Ukraine?

1. Geopolitical cooperation

- Soviet Union under the Ukrainian-born Leonid Brezhnev, support of India in the 1971 war against Pakistan. The slogan of Hindi-Rusi bhai-bhai was coined by USSR's Ukrainian leader, Nikita Khrushchev.
- Regular exchange of high-level visits and interactions** between India and Ukraine. **For ex-Regular telephonic communication** between **Indian Prime Minister** Mr. Narendra Modi and **President of Ukraine** Mr. Volodymyr Zelensky, during Russia-Ukraine War.
- Regular interactions between India and Russia through Joint-Working Groups, Foreign Office Consultations.

2. Defence Cooperation

- Ukraine has been a **source of military technology and equipment** for India since its independence. For ex- **Ukraine manufactured R-27 air-to-air missiles are used on the SU-30MKI fighters** operated by Indian Air force (IAF).
- India has also started exporting defence equipments to Ukraine, during its war with Russia.

3. Economic Cooperation

- In 2020, **India was Ukraine's largest export destination in the Asia-Pacific region.** India was Ukraine's fifth-largest export destination.
- There has been **significant growth of bilateral trade** between India and Ukraine, in the last 25 years. Bilateral trade between India and Ukraine **reached US \$3.386 billion in 2021-22.**
- Main items of export from Ukraine to India**– Agricultural products, Metallurgical products, Plastics & Polymers.
Main items of export from India to Ukraine– Pharmaceuticals, Machinery, Chemicals, Food products.
- A number of Indian companies have their representative offices in Ukraine. **For ex-** Office of '**Indian Pharmaceutical Manufacturers'** Association in Ukraine.

4. Humanitarian Assistance

- India has provided **12 consignments measuring 99.3 tons of humanitarian assistance** to Ukraine in the wake of the Ukraine-Russia war. The aid and assistance comprises **medicines, blankets, tents, tarpaulin, medical equipment.**
- Indian Pharmaceutical Companies have **donated more than USD 8 million worth of medical aid** and financial assistance to Ukraine.

5. Diaspora Cooperation

- The local Indian community, comprises mostly **business professionals** and **students studying medicine.** Indian business professionals are predominantly engaged in manufacturing, packaging, trading, and service industry.
- The local Indian community has formed an association called "**India Club**" which organizes cultural and sports events.

6. Cultural Cooperation

- More than 30 Ukrainian cultural associations/groups, spread across the country, are engaged in promotion of **Indian art forms, yoga, philosophy, Ayurveda, and spirituality.** **For ex- Celebration of Yoga Day and birth anniversary of Mahatma Gandhi.**

b. Shooting of Indian movies in Ukraine. **For ex-** The **iconic Oscar winning song Natu-Natu** was shot in Ukraine.

7. Institutional Cooperation

- a. **ITEC (Indian Technical and Economic Cooperation) program**, which offers training or capacity building programs in different centres of excellence in India.
- b. **ICCR (Indian Council for Cultural Relations) scholarship**, which offers higher-level courses covering wide range of subjects in eminent Indian Institutions.
- c. **Kendriya Hindi Sansthan Scholarship program**, which offers scholarships to Ukraine students to pursue higher-level Hindi language courses.

Read more- [Significance of India's PM Visit to Ukraine](#)

What are the Challenges in India-Ukraine Relations?

- a. **Declining bilateral Trade-** The volume of India-Ukraine trade has **dropped** from **\$3.39 billion in 2021-22** to **\$0.71 billion in 2023-24**, due to the ongoing Russia-Ukraine Crisis.
- b. **Impact on India's import-** The decline in trade has impacted India's import of agricultural, machine-building and military goods from Ukraine. **For ex- Impact on the supply chain of sunflower oil**, has led to rising inflation in the country.
- c. **India's relation with Russia-** India's **continued engagement with Russia**, and its **decision to avoid all public criticism of Moscow**, has led to a little dampening of the spirit of India-Ukraine geopolitical cooperation.
- d. **Ukraine's criticism of India's Policies in the past-** Ukraine's **criticism of India's Nuclear Test** and **India's Kashmir policy** has also been an irritant in India's full steamed engagement with Ukraine.

What are the emerging opportunities which make India-Ukraine relations significant?

The possibility of post-war reconstruction in Ukraine offers various opportunities for India.

1. **Room for enhanced defence cooperation-** Ukraine's urgent need for weapons **creates an opportunity for India to shed the virtually obsolete Soviet arms**. India can swap its Soviet hardware and ammunition for Western ammunition, as India pivots away from Soviet and Russian weapons to NATO systems.
2. **Geo- strategic cooperation in Indian Ocean-** Military cooperation with Ukraine could be a strategic game-changer for India, especially in the Indian Ocean. **Ukraine's modern, low cost and innovative waterborne technology, outsmarted the Russia's vastly superior Black Sea Fleet**. India can use Ukraine's expertise to counter China in the Indian Ocean region.
3. **Shift of Production bases to India-** Close cooperation between India and Ukraine can help in shifting production bases of Ukrainian manufacturing companies in India. **For ex- Shifting of the gas turbine manufacturing company, Zorya-Mashproekt's base in India**.
4. **Enhanced employment opportunities-** Ukraine's future reconstruction will offer huge opportunities for India's strained labour market.
5. **Enhanced cooperation in Digital sector-** India's deepened relations with Ukraine, can enhance the digital cooperation between the two nations and can be **game changer for governance of both countries**. **For ex- Indian electronic voting machines could prove invaluable to wartime Ukraine**, while **Ukraine's ground-breaking DIIA app**, which places government documents and services securely in one's smart phone, **could revolutionise Indian governance**.

What Should be the Way Forward?

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1. Tightrope Diplomatic Balancing Act- India must continue to diplomatically balance its relations with Russia and Ukraine, and with China and the US. India should not let its engagement with Ukraine change its equations with Russia, as Russia's engagement with China does not impact its relationship with India.

2. Take centre stage for delivering peace- India should take centre stage as a peaceable yet principled global player, and take the **lead in negotiations of the Ukrainian peace formula**. This will help in restoring the global food supply chains and prevent millions of starvation related deaths in the World.

3. Demonstrate new definition of non-alignment- India must **demonstrate the changed definition of non-alignment in India's foreign policy** by **deepening its relationship with Ukraine** while **maintaining its close cooperation with Russia**. Non-Alignment's definition in Indian foreign policy has changed from maintaining equal distance from all countries to maintain close ties with all countries.

The ongoing Russia-Ukraine conflict has put India in a delicate position, requiring it to balance its historical ties with Russia against its growing partnerships with the West. India must strategically navigate in this geopolitical quagmire.

Read More- [The Indian Express](#)

UPSC Syllabus- GS 2- Effects of policies of developed countries on India

Space Sector in India- Significance and Challenges- Explained Pointwise

The celebration of the **first ever National Space Day**, on August 23, 2024, has put the **spotlight on the Space Sector in India**. National Space Day in India commemorates the successful landing of Chandrayaan-3 on the Moon. The Government of India has launched a **month-long campaign** to showcase the **achievements** of the **space Sector in India** and inspire the Indian youth.

In this article, we will look into the recent developments in the Indian Space Sector, post the success of the Chandrayaan-3 mission. We will look at the significance of the Space Sector in India and the pertinent challenges plaguing it.



Source- The Hindu

What have been the recent developments in Space Sector in India post the Successful Chandrayaan-3 mission?

New Space Launches

Aditya-L1 Mission	Aditya-L1 spacecraft has been launched to study solar radiation from the Earth-Sun Lagrange point (L1), aboard the Polar Satellite Launch Vehicle (PSLV) . It reached its orbit around L1 by January 6, 2024, and completed its first orbit on July 2, 2024. In May 2024, it tracked a solar storm in collaboration with ground observatories and lunar spacecraft.
Gaganyaan TV-D1 Test Flight	The test successfully separated the crew module from the Test Vehicle (TV) , ensuring it safely descended and was recovered by the Indian Navy vessel INS Shakti . This test is a key part of ISRO's human spaceflight program .
XPoSat Launch	It studies the polarization of radiation from celestial objects and follows NASA's IPEX mission .
RLV-TD Tests	ISRO tested its Reusable Launch Vehicle (RLV), Pushpak, with landing experiments that mimicked conditions from space . These successful tests provided key data and set the stage for the upcoming Orbital Return Flight Experiment.
SSLV Development	ISRO successfully completed the final test flight of the Small Satellite Launch Vehicle (SSLV). This milestone confirms the SSLV's readiness for commercial use . The payloads included earth observation tools and an ultraviolet dosimeter for the Gaganyaan mission.

Regulatory and Institutional Developments

NewSpace India Ltd. (NSIL)	NSIL now manages commercial activities like Indian Remote Sensing satellite data. On May 1, 2024, NSIL signed a launch deal with SpaceX for the GSAT-20/GSAT-N2 satellite. It has also sought qualifications for LVM-3 production and signed a launch agreement with an Australian company for the SSLV.
Private Sector Contributions	Private space companies are progressing with their missions- Agnikul Cosmos launched its SoRTeD-01 vehicle, Skyroot Aerospace is developing the Vikram 1 rocket, and Dhruva Space and Bellatrix Aerospace contributed to the PSLV-C58 mission.
Regulatory Developments	India's space regulator, IN-SPACe , has updated its policies and issued new licences , including the first satellite broadband license to Eutelsat OneWeb and the first ground station license to Dhruva Space. The government has amended its foreign direct investment (FDI) policy to allow 100% FDI in most space sectors. However, there are some limits on satellite manufacturing (74%) and launch infrastructure (49%).

Future Roadmap and Initiatives

Gaganyaan Program	ISRO is progressing with its Gaganyaan human spaceflight program . By 2035, ISRO aims to establish India's own space station , the ' Bharatiya Antariksh Station ' (BAS).
Next-Generation Launch Vehicle	ISRO is working on a Next Generation Launch Vehicle (NGLV) . It will be a three-stage rocket using semi-cryogenic, liquid, and cryogenic engines . The NGLV will replace the GSLV. ISRO is also upgrading the LVM-3 rocket with a new semi-cryogenic engine.

What is the significance of Space sector in India?

- 1. Boost to 'Space Industrialisation'**- Currently, India manages to occupy only 2%, or US\$ 7 billion, of the global space economy. The development of space sector will **promote space Industrialisation in India, provide a boost to space-tech ecosystem** and **help India's space economy to reach \$100 billion by 2040**.
- 2. Low Cost Missions**- The Indian space sector has the **potential of launching space vehicles at a much lower cost**. This will help in getting many foreign contracts. **For ex- Mars Orbiter Mission was 10 times cheaper than western missions**.
- 3. Presence of Budding Entrepreneurs**- According to a global report published in June 2021, **India has 368 private space firms, placing it 5th in the world** in size after the US, the United Kingdom, Canada, and Germany. With these many firms, India is leading China (288), France (269), and Spain (206) in the private space industry.
- 4. Enhancement of India's role and position in the Artemis accord**- India is now a member of the Artemis Accords. With the further growth and development of space sector, India has an opportunity to lead the other Artemis countries alongside the U.S.

Artemis Accord- It is the U.S.-led **multilateral effort to place humans on the moon by 2025** and thereafter to expand human space exploration to the earth's wider neighbourhood in the solar system.

- 5. Expansion of cooperation in outer space**- While geo-political rivalry is a reality, India's space sector provides India an **opportunity to limit competition** and expand cooperation in outer space. However, **it also allows India to gain military advantage in space** over their geopolitical rivals on Earth.

What are the challenges in further development of space infrastructure in India?

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1. Budgetary Challenges- Space sector in India faces budget constraints despite its successes in launching missions. There has been an **8% decline in budget allocations to ISRO in 2023-2024** with respect to 2022-2023. The funds allocated to the space sector are very less in comparison to other countries. The US spent 10 times and China 6 times more than India in the space sector in 2019-20.

2. Manpower Challenges- ISRO, the foundational pillar of Indian space sector, faces manpower challenge due to the **problem of Brain Drain** and **fewer students pursuing advanced spaced space studies**.

3. Absence of a Clear Legislative Framework- The draft Space Activities bill, which was **introduced way back in 2017 but has not yet been passed**. This has hindered the further growth and development of the space sector in India.

4. Lack of robust Dispute Settlement Mechanism- This discourages private investment in the space sector in India. The void was seen in **Antrix-Devas cancelled satellite deal**. The Government of India owes nearly \$1.2 billion to Devas Multimedia as per an order of a tribunal of the International Chamber of Commerce.

5. Technological Challenges- ISRO faces **technological upgradation challenges** like **powerful launch vehicles with higher payload capacity**. For ex- While Chandrayaan-3 took nearly six weeks to get to the Moon, the failed Russian mission Luna-25 took just one week to touch down.

6. Government funding driven sector- Some critics have argued that such **massive spending by the government alone in the space sector** curtails **Indian government's spending capability in social sectors** like poverty alleviation, education, and health which must be the priority for developing country like India.

What Steps have been taken by the Government to address these challenges?

Indian Space Policy, 2023	Indian Space Policy 2023 is a landmark policy for the development for India's space sector . It offers an opportunity to build upon past achievements and harness the potential of the evolving space sector.
IN-SPACe	It aims to provide a level-playing field for private companies to use the Indian space architecture . IN-SPACe will act as a channel between ISRO and any private players that want to participate in space activity, thereby culling lengthy bureaucratic procedures.
FDI Policy	The government has amended its foreign direct investment (FDI) policy to allow 100% FDI in most space sectors. However, there are some limits on satellite manufacturing (74%) and launch infrastructure (49%) .
New Space India Limited (NSIL)	It is a Central Public Sector Enterprise under the Department of Space that was established in 2019. It has been mandated to transfer the technologies emanating out of the Indian space programme and enable Indian industry to scale up high-technology manufacturing base.

What should be the Way forward?

1. Push for greater privatization- India must frame its space policy regulations to allow for greater private sector investment in the field of space technology and infrastructure. **India's space programmes should be driven by commerce**.

2. Passage of space Activities Bill- The passage of the **Space Activities Bill** should also be done in order to give private players greater clarity and protection. This should involve proper consultation and discussions with the concerned stakeholders.

4. Setting up Space Dispute Tribunal- The plan to set up **an independent tribunal to adjudicate disputes among private space entities** should be implemented promptly.

4. Enhanced International Collaboration- India must do more collaboration and research with pioneer countries like the **US & Russia**, who have already ramped up their space infrastructure.

Indian Space sector possesses huge untapped potential which can be realized with adequate policy measures by the government. This would boost the confidence of the private sector and deliver optimum results, thereby helping the country acquire the top spot in the global space industry.

Read More- [The Hindu](#)

UPSC Syllabus- GS Paper-3- Achievements of Indians in Science & Technology (Space)

Sexual Harassment of Women at Workplace: Issues and Challenges – Explained, Pointwise

Sexual harassment of Women at the workplace is a form of gender discrimination that violates women's fundamental rights, including their right to equality under **Article 14** and their right to dignity and a safe life under **Article 21** of the Constitution. It creates an unsafe and hostile work environment, impeding women's professional growth and affecting their overall **well-being**.

The recent **rape** and **murder** of a **female doctor in Kolkata** has highlighted the poor working conditions women face. Women are unsafe whether they work in organized or unorganized sectors. Furthermore, the **Justice Hema committee's** recent report on the **Malayalam film industry** has exposed serious issues like sexual abuse, gender discrimination, and mistreatment of women in the industry.

Despite many laws designed to protect women from workplace harassment, such issues still occur. This article will examine why harassment continues and propose measures to address the problem effectively.

What are the key findings of Justice Hema Committee report?

- 1) **Sexual Demands**-Women entering the industry often face pressure to exchange sexual favors for job roles. This practice, called the "**casting couch**," involves demanding sexual favors in return for opportunities. The report also highlights frequent **vulgar comments** from men and **instances of drunk male** co-actors harassing women.
- 2) **Harassment and Torture**-Women experience sexual harassment, abuse, and assault at work, while **traveling**, and in their **living spaces**, as well as **online**. Those who reject sexual advances often encounter **mistreatment** and offensive remarks.
- 3) **Lack of Facilities and Safety**-Many workplaces, **especially outdoor ones**, lack essential facilities like **toilets** and **changing rooms**, which can lead to health problems such as **urinary infections**.
- 4) **Ban and Silence**- **Unauthorized bans** and threats of being barred from work are used to **silence women** in the industry. A **powerful male network** controls the industry, and challenging them can lead to being pushed out.
- 5) **Discrimination**-Gender bias is widespread, with significant **pay disparities** between men and women. Additionally, junior artists often face harsh conditions, working up to 19 hours a day.
- 6) **Non-execution of Contracts**-Many employment contracts are not **honored**, leading to actors and technicians receiving less pay or no payment at all.

What is the status of Sexual Harassment of Women at Workplace in India?

1) **National Crime Records Bureau (NCRB) Data**-From 2018 to 2022, India reported over 400 cases of sexual harassment at work each year, according to a Business Standard report, which used National Crime Records Bureau (NCRB) data.

2) **Prevalence of Sexual Harassment**-A 2018 survey by the **Martha Farrell Foundation** revealed that 80% of Indian women have faced workplace harassment, with 38% experiencing it in the past year.

3) **Rising Number of Complaints**-According to the Centre for Economic Data and Analysis (Ashoka University) sexual harassment complaints reported under the POSH Act have increased significantly, rising from **161 in 2013-14 to 1,160 in 2022-23**.

What are the existing initiatives to deal with Sexual Harassment of Women at Workplace in India?

The **Vishaka Guidelines**, established by the Supreme Court in 1997 to address **sexual harassment** at the workplace, were superseded in 2013 by the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act (POSH Act).

1) Sexual Harassment of Women at Workplace Act, 2013 (POSH Act)-

A) **Purpose**: To provide a safe and secure working environment for women by preventing and addressing sexual harassment at the workplace.

B) **Definition**: Defines **sexual harassment in a broad sense**, including unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature.

C) **Internal Complaints Committee (ICC)**: Mandates the establishment of an ICC in every organization **with 10 or more employees**. The ICC is responsible for receiving and addressing complaints of sexual harassment.

D) **Local Complaints Committee (LCC)**: For organizations with **fewer than 10 employees** or for cases where the ICC is not available, a **Local Complaints Committee** can be constituted at the district level.

E) **Complaint Procedure**: Outlines the process for filing and investigating complaints, ensuring **confidentiality** and **fair treatment** of both the complainant and the accused.

F) **Penalties**-It prescribes penalties for **non-compliance**, including fines and imprisonment. Employers can be fined up to **₹50,000** for not constituting an ICC.

2) **Addressing Quid Pro Quo Situations**-The **Bhartiya Nyay Samhita** criminalizes sexual harassment that involves false promises of marriage or employment. It treats such actions, where sexual favors are demanded under misleading pretenses, as serious offenses **akin to rape**.

What are the reasons for Sexual Harassment of Women at Workplace in India?

1) **Power Imbalances and Gender Inequality**:-In workplaces with a gender imbalance, men often hold more power, which can lead to the exploitation of women. Women may feel forced to **tolerate harassment** to secure their jobs.

2) **Lack of Awareness and Training**:-Reports from the **National Commission for Women (NCW)** show that many workplaces lack proper training on sexual harassment. This lack of awareness about **legal rights** and **procedures** hinders effective prevention and handling of harassment cases.

3) **Inadequate Implementation of Laws**-Many workplaces, especially in **informal sectors**, do not set up Internal Complaints Committees (ICCs) or enforce the 2013 **Sexual Harassment of Women at Workplace Act effectively**. For **ex-** a 2024 survey by The Udaiti Foundation found that 59% of organizations had not established the required ICCs.

4) **Effectiveness of ICCs**-Internal Complaints Committees (ICCs) may fail to be effective due to problems such as **poor confidentiality**, **bias**, or **interference from powerful individuals**. This weakens the complaint and resolution process.

5) **Fear of Retaliation**:-Many women hesitate to report harassment due to fear of retaliation, such as job loss or being **blacklisted**. . For ex-actress **Parvathy** experienced online rape threats and a drop in film roles after she spoke out against misogyny in the industry.

6)) **Cultural and Social Norms**-These downplays the seriousness of sexual harassment, making it difficult for victims to seek justice. Further, **social stigma** and **gender discrimination** contribute to a toxic work environment.

7) **Lack of Basic Facilities and Safety Measures**:-In some industries, especially **outdoor and informal ones**, the lack of basic facilities like proper toilets and changing rooms increases women's risks and discomfort. This can make them more **vulnerable** to harassment.

What are the implications of Sexual Harassment of Women at Workplace ?

1) Individual Impact-

A) Victims of sexual harassment often suffer from severe emotional distress, including **anxiety**, **depression**, and **low self-esteem**. They may also experience physical health issues like sleep disorders, **high blood pressure**, and weakened immune systems.

B) Sexual harassment can lead to lower job satisfaction and hinder career growth. According to a **2019 McKinsey report**, **35% of women in India** have thought about leaving or pausing their careers because of harassment.

2) Organizational Impact-

A) Sexual harassment creates a **toxic work environment** that lowers employee productivity. Victims may become distracted, miss work, and **lose motivation**, harming the organization's overall performance. For ex-it costs India \$6 to \$10 billion each year due to its effects on labor force participation and productivity, according to **World Bank estimates**.

B) Companies that ignore sexual harassment can face costly lawsuits and financial penalties. For ex- one case resulted in a \$17.4 million damage award.

3) **Societal Impact**- The harassment damages social norms by **normalizing violence** and **unsafe conditions** for women, undermining their **dignity** and **empowerment**.

What should be the way forward?

1) Implementing the recommendations of the Justice Hema Committee for film industry-

A) **Establishing a Tribunal**-A new law, the "**Kerala Cine Employers and Employees (Regulation) Act, 2020**," should be enacted to establish an independent tribunal for dealing with harassment and discrimination. This tribunal should be headed by a **retired district judge, preferably a woman**, and have the authority of a civil court.

B) **Mandatory Written Contracts**-The report recommends that all employees, including junior artists, must have written contracts to protect their rights. These contracts should include provisions for **female staff**, such as **safe toilets**, **secure accommodations**, and **safe travel arrangements**.

C) **Gender Awareness Training**-All cast and crew should complete mandatory **online gender awareness** training before starting work. The training materials should be provided in both Malayalam and English.

D) **Incentives for Gender-Just Movies**-The government should offer financial support and low-interest loans for films made by **women that focus on gender justice**.

E) **Banning Alcohol and Drugs**-Alcohol and drug use should be prohibited in film workplaces.

F) **Addressing Cyberthreats**-Online harassment of women, particularly through **fan clubs** and **other platforms**, should be addressed.

G) **Comprehensive Film Policy**-A comprehensive film policy focusing on **gender equality** in all aspects of production, distribution and exhibition should be developed.

2) For organized and other sectors-

A) **Implement and Enforce Legal Frameworks**-Compliance with the POSH Act should be ensured by setting up **Internal Complaints Committees (ICCs)** to handle harassment complaints. **For ex-** HDFC Bank and Accenture have implemented strong, independent ICCs with both male and female members.

B) **Strengthen Internal Policies**-A clear **sexual harassment policy** should be distributed, outlining prohibited behaviours, reporting procedures, and potential consequences. **For exa-** IBM India and Flipkart offer **anonymous reporting options** to protect employees' identities when reporting harassment.

C) **Ensure Fair Investigation**-All complaints should be investigated impartially and confidentially. The ICC should be trained to handle them sensitively and resolve issues quickly to ensure **justice** and **accountability**.

D) **Foster an Inclusive Culture**-A culture of respect and inclusivity should be fostered by encouraging **open discussions** about sexual harassment and supporting gender equality

E) **Support for Victims-Counseling** and **psychological support** should be offered to employees who experience harassment at workplace.

F) **Monitor and Review**-Frequent audits of the **workplace** should be conducted to evaluate the effectiveness of policies and training. **Feedback** should be used to make necessary improvements, and complaints should be monitored to identify and address ongoing issues.

G) **Self-defence Training** -Women should receive self-defense training, and schools should incorporate self-defense education for girls to empower them with the skills to protect themselves.

3) Recommendations of the Justice Verma Committee on Sexual Harassment at Workplace-

A) **Domestic workers** should be covered under the PoSH Act.

B) There is a need to establish an **Employment Tribunal** to handle cases of sexual harassment, rather than relying solely on the internal complaints committee (ICC) under the PoSH Act.

C) It recommended removing the **three-month deadline** for filing complaints, giving victims more time to report harassment without feeling rushed.

[Read More-The Hindu](#)

UPSC Syllabus- GS1- Issues related to Women

Unified Pension Scheme (UPS)- Significance and Concerns- Explained Pointwise

The **Unified Pension Scheme (UPS)** was approved recently by the Union cabinet. The scheme, which will be effective from April 1, 2025, **aims to provide the government employees with an assured pension** after retirement.

In recent times, **there were growing concerns** within the government employee circles regarding the **National Pension Scheme (NPS)**, popularly known as the New Pension Scheme. The concerns mainly centred around the **lack of assured pension returns** with the NPS. Due to the growing clamour for demands of returning to the Old Pension Scheme, the Union government formed a committee headed by Finance Secretary **TV Somanathan** to look into the issue of Old Pension Scheme vs National Pension System.

The recently introduced Unified Pension Scheme (UPS) **promises retirees a fixed pension**, unlike the National Pension System (NPS). However, it retains the provisions of employee contribution like the National Pension System.



OPS vs NPS vs UPS

Features	Old Pension Scheme (OPS)	National Pension System (NPS)	Unified Pension System (UPS)
Pension Amount	50% of last drawn salary.	Market-linked pension. No defined pension, with the value depending upon the performance of the investment fund	Guaranteed pension of 50% of the average basic pay from the last 12 months before retirement.
Inflation Indexation	Adjusted for inflation through Dearness Allowance (DA) .	Not applicable, the pension is market linked.	Indexed for Inflation based on the All India Consumer Price Index for Industrial Workers (AICPI-IW)
Employee Contribution	No contribution from employee.	Defined contribution of 10% of basic pay and dearness allowance (DA) .	Defined contribution of 10% of basic pay and dearness allowance (DA) .
Government Contribution	Full Funding	Defined contribution of 14% of the employee's basic pay and dearness allowance.	Defined contribution of 18.5% of the employee's basic pay and dearness allowance.
Family Pension	Yes. Continues after retirees death.	Corpus Dependent	Yes. It is 60% of employee's pension.
Risk	No market risk	Market risk	Lower risk than NPS

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What are the different Pension Schemes in India? What are their provisions?

Pension Scheme	Applicability	Features
Old Pension Scheme (OPS)	Applicable to all government employees appointed before January 1, 2004 .	<p>a. It is a ‘defined benefit scheme’ as the government employees were paid 50% of their last drawn salary plus Dearness Allowance (DA) as pension after their retirement.</p> <p>b. Under this scheme, the entire pension amount was borne by the government while fixed returns were guaranteed for employee contribution to the General Provident Fund (GPF).</p>
National Pension System (NPS)	<p>a. Introduced on January 1, 2004. All central government employees joining after January 1, 2004, were compulsorily enrolled in NPS</p> <p>b. It was voluntary for the state governments to join the NPS. Almost all the states except for West Bengal and Tamil Nadu migrated to the NPS.</p> <p>c. Rajasthan, Chhattisgarh, Jharkhand, Punjab, and Himachal Pradesh announced a shift back to the OPS.</p>	<p>a. The scheme is a “defined contribution scheme” as the government employees have to make defined contribution of 10% of basic pay and dearness allowance (DA). There is matching contribution by the government.</p> <p>b. There is no defined benefit. The pension benefit is determined by factors such as the amount of contribution made, the age of joining, the type of investment and the income drawn from that investment.</p> <p>c. It remained voluntary for the workforce in the unorganized sector.</p>
Unified Pension Scheme	<p>a. It will be applicable from April 1, 2025 to all those who have retired under the NPS from 2004 onwards.</p> <p>b. Employees can still opt to remain under the NPS.</p> <p>c. Currently for central government employees, but states can also adopt it.</p>	<p>a. It is an assured Pension Scheme and does not leave things to vagaries of market forces.</p> <p>b. The structure of Unified Pension Scheme (UPS) has the best elements of both OPS and NPS. Like OPS, it provides an assured pension and, like NPS, it has provisions of employee contribution to the pension corpus.</p> <p>c. The UPS is a funded contributory scheme, while the OPS is an unfunded non-contributory scheme.</p>

What are the Salient Features of the Unified Pension Scheme (UPS)?

The salient features of the Unified Pension Scheme (UPS) are as follows-

- Assured pension-** **50% of the average basic pay drawn over the last 12 months** prior to superannuation for a minimum qualifying service of 25 years. This pay will be **proportionate for lesser service period**, up to a minimum of 10 years of service.
- Assured family pension-** This will be **60% of pension of the employee** immediately before her/his demise.
- Assured minimum pension-** This will be **10,000 per month** on superannuation after minimum 10 years of service.

d. **Inflation indexation**- Inflation indexation will be provided on **assured pension**, on **assured family pension** and **assured minimum pension**. **Dearness Relief** will be based on All India Consumer Price Index for Industrial Workers (AICPI-IW) as in case of service employees.

e. **Lump sum payment at superannuation in addition to gratuity**- **1/10th of monthly emoluments** (pay + DA) as on the date of superannuation for every completed six months of service. This **payment will not reduce the quantum of assured pension**.

What is the comparative analysis of the three pension schemes?

Features	Old Pension Scheme (OPS)	National Pension System (NPS)	Unified Pension System (UPS)
Pension Amount	50% of last drawn salary.	Market-linked pension . There is no defined pension and the pension value depends upon the performance of the selected investment funds.	Guaranteed pension of 50% of the average basic pay from the last 12 months before retirement.
Inflation Indexation	Adjusted for inflation through Dearness Allowance (DA) .	Not applicable, the pension is market linked.	Indexed for Inflation based on the All India Consumer Price Index for Industrial Workers (AICPI-IW)
Employee Contribution	No contribution from employee.	Defined contribution of 10% of basic pay and dearness allowance (DA) .	Defined contribution of 10% of basic pay and dearness allowance (DA) .
Government Contribution	Full Funding	Defined contribution of 14% of the employee's basic pay and dearness allowance.	Defined contribution of 18.5% of the employee's basic pay and dearness allowance.
Family Pension	Yes. Continues after retirees death.	Corpus Dependent	Yes. It is 60% of employee's pension .
Risk	No market risk	Market risk	Lower risk than NPS
Flexibility	Low, fixed benefits	High, with investment choice flexibility	Limited, with assured pension

What were the reasons for the introduction of NPS, and what were the issues with the NPS?

Reasons for the introduction of National Pension System (NPS)

1. Limited Coverage of the Old Pension Scheme(OPS)- The Old Pension Scheme(OPS) **covered only the government employees**, which formed ~12% of the total workforce of the country. National Pension Scheme aim was to provide **pension coverage to even the workers of the unorganised sector**. Workers of the unorganised sector could also join the NPS voluntarily.

2. Huge Fiscal burden on the Central and State Governments due to OPS- With every new pay commission awards, the basic salaries of the Government servants were increasing. This was **increasing the burden on the Union and state exchequers in making pension payments** under OPS scheme. **According to the India Pension Research Foundation**, the expenditure on Union civil service pensions was around be **2.31% of the GDP in 2004-05** and the implicit pension debt of the Government of India was around 56% of the GDP.

3. Burden on the future Generation due to OPS- Under the OPS Scheme, **contributions of the current generation of workers were explicitly used to pay the pensions of pensioners.** Hence, OPS scheme involved direct transfer of resources from the current generation of taxpayers to fund the pensioners.

4. Disincentivised Early Retirement- The OPS scheme used to disincentivise early retirement, as the pension was fixed at 50% of the last drawn salary. Hence, even the **disinterested government employees used to linger around** to reach till their retirement age to avail maximum pension. This resulted in massive under utilisation of human resources.

5. Flexibility- NPS allowed the subscriber to **choose the fund manager** and **the preferred investment option**, including a 100% government bond option. A guaranteed return option could also be considered to provide an assured annuity.

6. Simplicity and portability- Opening of account with NPS provided a **Permanent Retirement Account Number (PRAN)** which remained valid throughout the lifetime of the subscriber. The NPS is also portable across jobs, as PRAN account remains the same.

7. Well Regulated Scheme- An NPS Trust was also **constituted to regularly oversee performance of fund managers**, with a trustee bank to efficiently manage fund flows. A custodian was also appointed to hold the securities, with subscribers being beneficial owners of the assets.

However, there were Issues with National Pension System(NPS) which demanded review

1. Market Volatility/Uncertainty- Contributions under the NPS scheme were invested in the markets through the fund managers. There were **apprehensions that the new NPS will not deliver the same benefits as the old scheme.** The returns were prone to the market volatility and uncertainty. As per SBI report, **NPS asset growth has been affected by the Ukraine-Russia conflict** and may fall short of the declared target of Rs 7.5 lakh crore by March 2022.

2. Increased burden on Employees- Under the old pension scheme, all the burden of pension was borne by the government. There was no requirement of monthly contribution from employees in the pension fund. Hence, the employees used to get greater disposable monthly income in their hands along with an assurity of pension. NPS had **decreased the disposable monthly income in the employees hands** as 10% of their basic pay and DA is deducted every month.

3. No General Provident Fund (GPF) benefits- Under the Old Pension Scheme (OPS), fixed returns were guaranteed for employee contribution to the General Provident Fund (GPF). However, NPS has no General Provident Fund (GPF) provisions.

4. No assured Family Pension- There were no provisions for assured family pension in the NPS, unlike the OPS. The pension was dependent on the pension corpus.

5. No indexation for Inflation- The NPS lacked any indexation to account for inflation. The pension was entirely market linked.

[Read More- Old Pension Scheme\(OPS\) vs National Pension System\(NPS\)- Explained Pointwise](#)

What is the Significance of the UPS?

1. Assured Pension- UPS provides a fixed, assured pension amount, unlike the market-linked returns of the NPS.

Employees who have served for at least 25 years will receive 50% of their last drawn salary from the previous 12 months as pension.

2. Higher Government Contribution- The **government's contribution rate in UPS is 18.5%**, which is higher than the 14% in NPS. This increased contribution can significantly boost the pension corpus, providing greater financial security in retirement.

3. Inflation Indexation- Employees who have served for over 25 years will be eligible for post-retirement inflation-linked increments to their pension. This **protects the real value of the pension** against rising prices.

4. Assured Family Pension- UPS includes an assured family pension of 60% of the employee's basic pay, payable to dependents upon the employee's death.

5. Combination of Defined Benefits and Contributions- UPS **blends the guaranteed pension features of OPS with the investment flexibility and portability of NPS**. This balanced approach offers both stability and growth potential for retirement benefits.

What are the Concerns with the Unified Pension Scheme?

1. Increased Fiscal Burden- The introduction of a **defined pension** could significantly increase the financial burden on the government. **For ex- The expenditure on arrears will be Rs 800 crore in the first year of implementation**, and would cost the exchequer roughly Rs 6,250 crore.

2. Potential for Unsustainable Liabilities- As the UPS combines features of both the Old Pension Scheme (OPS) and the National Pension System (NPS), there is concern that it may lead to unsustainable liabilities for the government. The **defined benefits could constrain spending on other essential services**, as a larger portion of the budget may need to be allocated to cover pension costs.

3. Inequitable Benefits- The scheme primarily **benefits a small section of the workforce**, the central government employees. While the NPS was voluntary for the workforce in the unorganized sector, there are no such provisions in the UPS.

4. Transition from NPS- This transition raises questions about the **management of the existing NPS corpus** and the potential for **reduced participation in the NPS**.

What Should be the Way Forward?

1. Regular Assessments- Periodic evaluations should be conducted to ensure that the scheme remains financially viable. The **government contributions should be adjusted** based on these assessments to **maintain a balance between employee benefits and fiscal responsibility**.

2. Stakeholder Consultations- There must be **regular engagement with government employees, unions, and other stakeholders** to gather feedback and address concerns regarding the UPS. This can help in refining the scheme.

3. Performance Metrics- The government should aim to establish **clear performance metrics** to evaluate the effectiveness of the UPS in meeting its objectives. Regular monitoring can help in making informed decisions about necessary adjustments to the scheme.

Read More- [The Indian Express](#)

UPSC Syllabus- GS-3 Indian Economy

Weather Forecasting in India- Achievements and Challenges- Explained Pointwise

There has been a **significant increase of trust in India's weather forecasting** among the general public, due to considerable **improvements** in the **accuracy of forecasts**. This has led to an **increase in demands** for more **accurate** and **specific weather forecasting in India**, particularly in **light of the increasing instances of extreme weather events**, and climate change induced catastrophic disasters. To **serve the growing need for accurate weather forecasting**, the government is planning a major upgrade of the IMD's existing capabilities.

In this article, we will delve into the **developments in weather forecasting infrastructure**, the **need for it** and its **success stories**. We will also look at the **challenges in prediction of accurate weather conditions** and the way forward.



Source- Indian Express

What has been the historical development of weather forecasting in India?

Ancient Periods	a. In ancient India, weather prediction was largely based on astrology, observation of natural phenomena, and folklore . b. Varahamihira's classical work, Brihatsamhita , provides clear evidence of deep knowledge of atmospheric processes at the time. c. Kautilya's Arthashastra contains records of scientific measurement of rainfall and its application to the country's revenue and relief operations.
Colonial Period	a. Establishment of the India Meteorological Department (IMD) - Modern weather forecasting in India began during the British colonial period. The IMD was established in 1875 by Sir Henry Blanford. Its primary aim was prediction of monsoons , which were crucial for the agrarian economy. b. Understanding of monsoons - IMD made significant progress in understanding monsoons under Gilbert Walker, who was appointed as head of IMD in 1903. Walker's identification of large-scale oscillations in atmospheric circulations , laid the foundation for modern comprehension of the El Niño phenomenon.
Post-Independence Period	a. Expansion of IMD - The IMD has expanded its network of weather stations across the country.

	<p>b. Introduction of Numerical Weather Prediction (NWP)- These models, which are based on complex mathematical equations, allowed for more accurate and timely forecasts.</p> <p>c. Satellites and Doppler Radars- INSAT System was launched in 1982, which marked a new era in weather forecasting. INSAT provided real-time data on weather patterns, helping to improve the accuracy of forecasts, especially for cyclones.</p>
21st Century Developments	<p>a. Monsoon Mission in 2012- It aimed at improving the long-range monsoon forecasts that are crucial for the government's economic planning.</p> <p>b. Expansion of IMD capabilities- New initiatives were launched by the IMD to improve the observation network, install high-performance computing systems, deploy sophisticated instruments like Doppler radars, and develop better computer simulation models.</p>

Instruments	2024	2014*
Automatic weather stations	1,208	675
Automatic rain gauges	1,382	1,350
Doppler weather radars	39	15
High wind speed recorders	35	19
Upper air observation systems	56	43
GPS-based balloon stations	23	0
District-wise rainfall monitoring scheme	5,896	3,955
Super computers	2	0
Weather satellites	3	1

10 years earlier. Source: IMD*

The current capacity of India's weather forecasting system

Source-Indian express

Read More- [150 years of IMD- Significance and Challenges- Explained Pointwise](#)

What is the significance of weather forecasting system in India?

- 1. Agriculture and Food Security-** India's agriculture is **heavily reliant on the monsoon**. Monsoon provides about **70-80% of the country's annual rainfall**. Hence, accurate weather forecasting helps in planning the agricultural activities such as sowing, irrigation, harvesting, crop management and pest and disease control.
- 2. Disaster Management and Mitigation-** India's vulnerability to various disasters such as **cyclones, floods, heatwaves, cold waves, and droughts**. Accurate weather forecasting helps in mitigating the negative impact of these disasters.
- 3. Reduction of economic losses-**
 - a. The **destruction of agricultural crops** causes due to vagaries of weather like droughts, less monsoon, cause huge economic loss to the agriculturalists and leads to rural distress.
 - b. The energy sector, like the **hydropower and solar power**, is sensitive to weather conditions. Accurate forecasting supports the efficient management of energy resources, ensuring consistent supply and reducing economic losses.
- 4. Construction and Urban Planning-** Weather forecasts are vital for planning construction activities, particularly during the monsoon and winter seasons. These help in **avoiding delays, ensuring worker safety, and minimizing construction costs**.
- 5. Transport and Logistics-** Accurate weather predictions are crucial for the safety and efficiency of road, rail and sea transportation. **For ex- Fog forecasts in winter help in management of flight schedules**.
- 6. Public Health and Safety-** Weather predictions help in the improvement of public health and safety. **For ex- Forecasts of extreme temperatures help in the prevention of Heat-related illnesses like heat-stroke**.
- 7. Water Resource Management-** Weather forecasts are essential for managing water resources like **Irrigation planning and reservoir management**.

What have been the successes of Weather Forecasting in India?

- 1. Improved cyclone forecast system-** The timely and accurate forecasts of cyclones in India has led to the establishment of a reliable response and evacuation mechanism. **For ex- 2013 Cyclone Phailin's and 2020 Cyclone Amphan's** accurate predictions has avoided the loss of thousands of human lives.
- 2. Monsoon prediction-** The **long-range monsoon forecasts** have a **near cent percent accuracy** over the last decade.
- 3. Weather Forecasting for transportation-** **Winter Fog Experiment (WIFEX)** developed by IMD has helped in the dissemination of fog information, which is used by airlines and passengers to plan their travel.
- 4. Air Quality Monitoring-** **IMD's SAFAR system** is being used to monitor air pollution level in major cities such as Delhi.
- 5. Enhanced India's global reputation-** IMD has been recognised as one of the **six Regional Specialized Meteorological Centres of the World Meteorological Organization (WMO)**. IMD has contributed to the United Nations' 'Early Warning for All' programme regarding climate change.

What are the reasons for increased demands for more accurate weather predictions in India?

- 1. Increased frequency of extreme weather events-** The extreme weather events like **cloudburst, intense heatwaves**, which usually occurred once in a few decades, now threaten people's lives and livelihoods throughout the year.
- 2. Increase in climate induced vagaries-** Climate-induced vagaries have triggered disasters like the **recent landslides in Wayanad and lake bursts in Sikkim and Uttarakhand last year**. This has caught the administrators off guard. Hence the need for more robust and accurate weather prediction has increased in India.
- 3. Need for data at the hyper-local levels-** The need of weather predictions at the hyper-local has increased in recent times. **For ex- Farmers, municipal authorities, and office and school goers demand forecasts about copious rainfall at hyper-local levels**, to plan their daily activities.
- 4. Increased intensity of rainfall-** The increase in incidents of heavy localised rainfall has further increased demands for improving the accuracy of weather predictions in India. **For ex- Kalyanapattinum in Tamil Nadu's Thoothukudi district experiencing an entire season's rainfall in a day.**

What are the challenges with Weather Forecasting in India?

- 1. Greater variability in weather phenomena-** The **forecasting of weather in the tropical countries like India**, is more challenging **than in areas that are farther from the equator**, due to greater variability in weather phenomena.
- 2. Challenges of hyper-locality-** IMD's current weather forecast ability is **spread over a 12km X 12km area**. This grid, which is larger than most Indian cities helps in forecasting of likelihood of rainfall over the city. However, the **lack of 3km X 3km grid**, hinders the ability of monsoon prediction at the hyperlocal level.
- 3. Inherent uncertainties in weather forecasting-** The science of weather forecasting also suffers from **ineherent uncertainties**. The **greater the precision of weather forecasting, the greater is the uncertainty**. Also the **earlier the weather forecast, the lesser will be its precision**.
- 4. Lack of data Assimilation and Modelling-** Incorporation of diverse and accurate data into numerical weather prediction models is another major challenge to the weather prediction in India. **For Ex- IMD's challenge in assimilation of satellite data during the 2015 Chennai floods** which impacted the accuracy of predictions.
- 5. Outdated and insufficient observational infrastructure-** IMD also grapples with the challenge of **outdated and insufficient observational infrastructure** like the **early warning systems**. **For Ex- Failure of early warning systems in disseminating information about the 2013 Uttarakhand floods.**
- 6. Collaboration with neighbouring countries-** IMD also faces the challenge of **lack of enhanced collaboration in data sharing** related to **transboundary air pollution** and **shared water resources** with the meteorological departments of China and Pakistan

What should be the Way Forward?

- 1. Hyper local analysis-** The IMD must should aim at **developing 3 km x 3 km grids**, and should eventually aim to **develop hyper-local forecasts for 1 km x 1 km areas**.
- 2. Tailoring to local specifics-** India's weather forecasting system should aim at **developing computer simulated models** tailored to **local specifics**. The data collectors **should narrow their focus to district, block, panchayat, village and ward and street-levels**.

3. **Integration of Artificial Intelligence (AI) and Machine Learning (ML)**- Incorporation of AI and ML algorithms to analyse vast amounts of meteorological data to improve prediction models and enhance the accuracy of weather forecasts.

4. **Academic and Research Collaboration**- The met department should tap into research conducted in universities and institutions. For ex- Collaboration between IMD and IIT Bombay which has developed cutting-edge computing technologies this year to predict rainfall in the city with greater accuracy than the IMD.

5. **Infrastructural upgrades**- The focus must be on infrastructure upgradation in terms of meteorological aspects like installation of ocean observation systems, high-resolution earth observation satellites and optimum utilisation of Doppler radars in the eastern and northeastern regions of the country.

[Read More- The Indian Express](#)

UPSC Syllabus- GS 3- Achievements of India in the field of science and technology

10 years of Pradhan Mantri Jan Dhan Yojana (PMJDY)- Progress, Impact and Challenges- Explained Pointwise

The launch of the Pradhan Mantri Jan Dhan Yojana on August 28, 2014 was a significant step by the government in its concerted attempt to bring the unbanked sections of the population into the ambit of the formal financial system. As the scheme completed 10 years recently, Prime Minister Narendra Modi hailed the 'momentous' achievement of the scheme. The prime minister held that the scheme was paramount in boosting financial inclusion and giving dignity to crores of people, especially women, youth, and the marginalised communities.

In this article, we will look at the features of the scheme, the achievements of the scheme, the challenges it faces and the way forward for achieving better financial inclusion through this scheme.

What are the features of Pradhan Mantri Jan Dhan Yojana (PMJDY)?

PMJDY- Pradhan Mantri Jan Dhan Yojana (PMJDY) is National Mission for Financial Inclusion to ensure access to financial services, such as a basic savings & deposit accounts, remittance, credit, insurance, pension in an affordable manner.

The Pradhan Mantri Jan Dhan Yojana was launched on August 28, 2014. On the day of the launch of the scheme, banks organised 77,892 camps around the country, and opened about 1.8 crore accounts.

Objective of the Scheme- The primary objective of this scheme is to provide accessible banking services to all citizens, particularly the underprivileged sections of society.

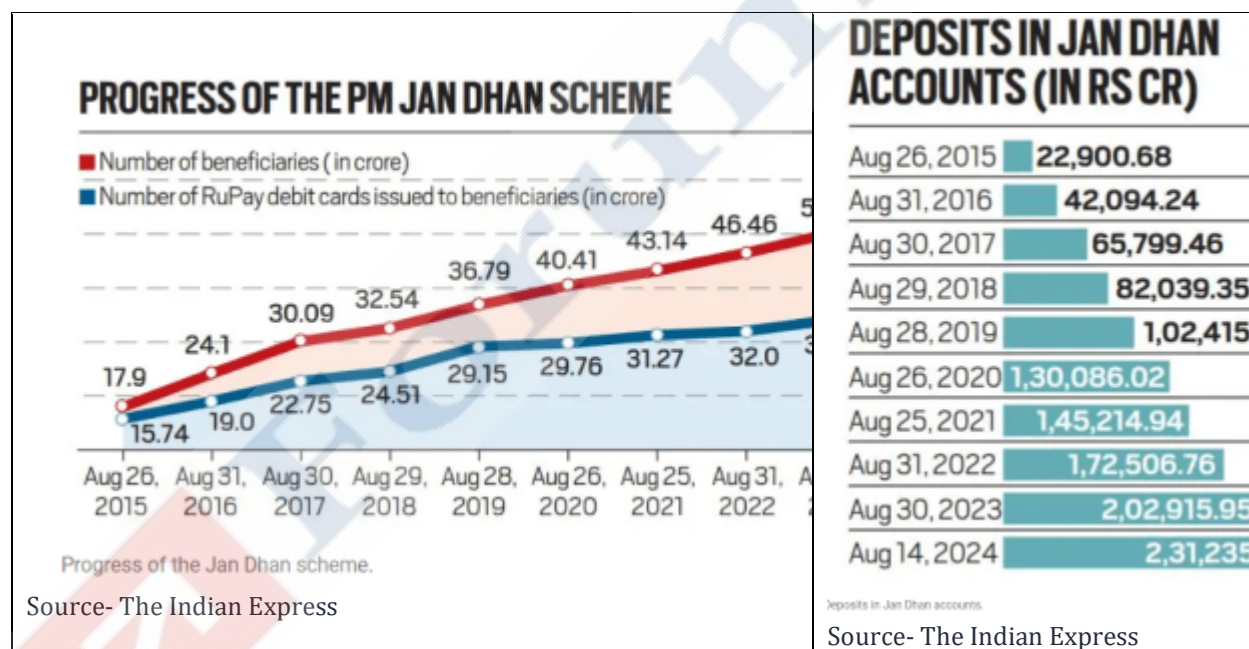
Key Features of the scheme

Account Accessibility	Pradhan Mantri Jan Dhan Yojana (PMJDY) aims to ensure that every household has at least one bank account.
Zero Balance Accounts	The accounts under PMJDY can be opened without the need for a minimum balance. This makes it easier for low-income individuals to access banking services. These accounts earn interest on deposits like a regular account.

Overdraft Facility	The account holders are eligible for an overdraft facility of up to Rs.10,000 . It is specifically aimed at women account holders.
Accident Insurance Cover	Accident Insurance Cover of Rs.1 lakh is available with Ru Pay card issued to the PMJDY account holders . It has been enhanced to Rs. 2 lakh to new PMJDY accounts opened after 28.8.2018.
Direct Benefit Transfers	PMJDY accounts are also eligible for Direct Benefit Transfers (DBT) , Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY) , Pradhan Mantri Suraksha Bima Yojana (PMSBY) , Atal Pension Yojana (APY) , and the Micro Units Development & Refinance Agency Bank (MUDRA) scheme.
Financial Literacy	The scheme focuses on promoting financial literacy among account holders.
Bank Mitras	The scheme employs Bank Mitras (bank representatives) to enhance accessibility of the scheme . These Bank Mitras provide branchless banking services across the country , especially in rural and remote areas.

What has been the progress of the Pradhan Mantri Jan Dhan Yojana (PMJDY)?

1. Large number of new bank accounts- As per the latest data, a staggering **53.1 crore accounts** have been opened under the scheme. This includes **29.56 crore women** beneficiaries account. The **number of bank accounts opened in the PMJDY is more than the population of the European Union**, and almost the same as the population of the United States.



2. Bank accounts bank wise- The largest share of PMJDY accounts is with public sector banks.

Public Sector Banks- **41.42 crore accounts**

Regional Rural Banks- **9.89 crore accounts**

Private sector banks- **1.64 crore accounts**

Rural Cooperative Banks- **0.19 crore accounts**

3. State wise analysis of accounts under PMJDY-

a. Most of the accounts have been opened in **Uttar Pradesh (9.45 crores)** and the least has been opened in **Lakshadweep (only 9,256 accounts)**.

b. **15 states apart from UP have more than 1 crore PMJDY bank accounts**– Bihar, West Bengal, Madhya Pradesh, Rajasthan, Maharashtra, Assam, Odisha, Karnataka, Jharkhand, Gujarat, Chhattisgarh, Tamil Nadu, Andhra Pradesh, Telangana, and Haryana.

What is the impact and achievement of Pradhan Mantri Jan Dhan Yojana?

1. **Banking to the unbanked**- The opening of **staggering 53.1 crore bank accounts** has promoted financial inclusion in the country. As per the World Bank's Findex database, **78% of Indian adults** (population with 15 years or more of age) had a bank account in 2021 as compared to 53% in 2014.

2. **Narrowing of the Rural-Urban Financial access Gap**- Out of the total bank accounts opened under the PMJDY, **67% have been opened in rural/semi-urban areas**. This has helped in narrowing the gap in access to the formal banking system between rural and urban areas.

3. **Bridging the Gender Gap between financial access**- Out of the new accounts opened, roughly **56% of the new account holders are women**. This has helped bridge the gender gap in access to financial services.

4. **Expansion of Commercial Bank Infrastructure**- The opening of more than half a billion bank accounts has fuelled demand for banking services. This has encouraged commercial banks to expand their infrastructure in recent years. **For Ex-**

Financial Infrastructure	2013	2023	% increase
Scheduled commercial banks Branches	1,05,992	1,54,983	46%
Number of ATMs	1,66,894	2,16,914	30%
Number of Points of Sale (POS) machines	10.88 lakh	89.67 lakh	82%

5. **Promotion of Direct Benefit Transfer (DBT)**- The Jan Dhan Yojana as an integral component of the JAM trinity (Jan Dhan, Aadhaar and mobile), has **enabled the government to shift to a more efficient system for transferring benefits directly to beneficiaries**. As per government data, the **JAM trinity** has helped in **total cumulative transfers** of Rs 38.5 lakh crore.

6. **Prevention of financial leakages**- The direct benefit transfer through the Jan Dhan accounts, has helped in prevention of financial leakages by weeding out ineligible or fake beneficiaries. **For ex-** According to RBI report, the DBT through Jan Dhan account as **resulted in a gain of Rs 3.48 lakh crore in the implementation of government schemes** including MG-NREGS and PM-Kisan.

7. **Support to citizens in times of distress**- The JAM architecture has been used by the government to provide support to citizens during times of distress. **For ex-** The **transfer of Rs 500 to 20 crore women Jan Dhan account holders** during the initial days of the pandemic.

8. **Promotion of Digital payments and Digital economy**- JAM framework forms an **integral part** of the **Unified Payments Interface (UPI)**, which has transformed the payment systems in the country. This has eased and increased banking transactions in the economy, leading to significant economic gains. **For ex-** Large share of low value transactions as part of the UPI, shows the ease of the ability of low income households, to engage in formal financial transactions in their daily lives.

What are the Challenges with the scheme?

The Pradhan Mantri Jan Dhan Yojana (PMJDY) has made significant strides in promoting financial inclusion in India since its launch in 2014. However, several challenges continue to impede its effectiveness.

- 1. Account Dormancy and inactivity-** Despite the high number of accounts opened (over 53 crore by 2023), many accounts remain dormant and inactive. **For ex-** According to a report, ~86.3% of PMJDY accounts are operational. This suggests that a significant portion of accounts opened remain dormant.
- 2. Use as mule accounts-** There concerns regarding the use of PMJDY accounts as mule accounts in fraudulent activities, such as **money laundering** or **storage of black money**. **For ex-** Reports of **large sums of money being deposited in dormant PMJDY accounts** raised concerns about the misuse **post-demonetisation** in 2016.
- 3. Infrastructural Issues-** According to **KPMG report**, the **inadequacy of physical** and **digital infrastructure**, particularly in rural areas, has hindered the ability of account holders to perform transactions. **For ex-** Lack of bank branches or functional ATM in villages of states like Bihar and Uttar Pradesh.
- 4. Technological Barriers-** **Poor internet connectivity** and **inadequate banking technology** has affected the effective management of banking services for remote Jan Dhan account holders.
- 5. Lack of Financial literacy-** The lack of financial literacy among beneficiaries is a critical barrier in the effective implementation of Pradhan Mantri Jan Dhan Yojana (PMJDY). **For ex-** **Unawareness** about **overdraft facilities** and **insurance cover** provided for beneficiaries under PMJDY.
- 6. Duplication of Accounts-** The opening of multiple Jan Dhan accounts under different schemes **complicates data management** and **skews the understanding of the actual number of beneficiaries**.
- 7. Exclusion of Certain Populations-** Certain marginalised groups, including tribal populations and people living in extremely remote areas, remain excluded from the scheme due to social and geographical barriers. **For ex-** **Low Banking penetration** in the **tribal regions** of **Chhattisgarh** and **Jharkhand**.
- 8. Gender Disparity-** Women in some conservative rural areas are **less likely** to use **PMJDY accounts independently due to social norms**. This restricts their mobility and financial autonomy.

What Should be the Way Forward?

- 1. Enhancement of Financial Literacy-** Implementation of widespread financial literacy campaigns, in **partnership with local community leaders**, **NGOs**, and **educational institutions** will promote financial literacy and better use of Jan Dhan Accounts.
- 2. Encouragement of active use of accounts-** The active use of PMJDY accounts should be incentivized by linking them with various government schemes, subsidies, and benefits. **For ex-** Introduction of schemes where **account holders receive benefits** like **interest on savings**, **overdraft facilities**, or **cashback for digital transactions**.
- 3. Greater Integration of Financial Services-** The integration of financial services like **microcredit**, **pension**, **insurance products** with the Jan Dhan accounts will help in encouraging the active use of Jan Dhan accounts.
- 4. Improvement of Banking Infrastructure-** Expansion of the banking network, particularly in underserved rural and remote areas, by **setting up more branches**, **ATMs**, and **digital banking touchpoints**. Encouragement of the use of Business Correspondents (BCs) and mobile banking units to reach remote areas, will further deepen the process of financial inclusion.
- 5. Regular Monitoring and Feedback Mechanism-** Establishment of a **system for regular monitoring and evaluation of the PMJDY's progress**, and **collection of feedback from beneficiaries** to identify areas for improvement will ensure that the scheme adapts to changing needs.

Source- [The Indian Express](#)

UPSC Syllabus- GS 3- Indian Economy (Financial Inclusion)

India's role in Russia-Ukraine Crisis-Significance and Challenges- Explained Pointwise

During the recent historic visit of India's Prime Minister Narendra Modi to Ukraine, India reiterated the need for sincere and practical engagement between all stakeholders, to develop innovative solutions that will have broad acceptability and contribute towards early restoration of peace. The reiteration of India's willingness to contribute in all possible ways to facilitate an early return of peace, is a clear indication of India's willingness to get involved in a search for peace in Russia-Ukraine crisis.

The article discusses India's foreign policy stand on the Russia-Ukraine crisis, the significance of the peace process and the challenges in finding peace in the Russia-Ukraine crisis.



Source- The Indian Express

What has been India's foreign policy stand on the Russia-Ukraine crisis?

- 1. Non-alignment and strategic autonomy-** India's foreign policy stance has been driven by the historical principles of non-alignment and strategic autonomy. India has sought to balance its relationships with global powers and a peaceful negotiation of territorial disputes.
- 2. Neutrality and Abstention-** Since the onset of the Russia-Ukraine war in February 2022, India has avoided taking sides. Much to the ire of the western states, which have wanted India to condemn the Russian role in the conflict, India has abstained on resolutions in the United Nations Security Council (UNSC) and the United Nations General Assembly (UNGA).
- 3. Economic and Strategic Interests-** India has continued to import discounted Russian oil, prioritizing its energy security amid rising global prices. However, at the same time, India has sought to reduce its dependence on Russian military supplies, recognizing the need for diversification in defence equipment procurement.
- 4. Settlement through institutional mechanisms-** India has always advocated respect for the United Nations charter and peaceful settlement of disputes through institutions such as the UN.

This approach of India's foreign policy was consistent with India's broader strategy of **managing complex geopolitical landscapes** without **compromising its national interests**.

Heightened expectations of a more active role in the mediation process

a. Prime Minister Narendra Modi's recent diplomatic activities which includes his **visit to Ukraine and Russia, conversations with U.S. President Joe Biden and Russian President Vladimir Putin, and upcoming engagements at the UN meeting in September and the BRICS summit in Russia**, have all heightened expectations that India may play a more active role in mediating the Russia-Ukraine conflict.

b. In communications with both Russian President Vladimir Putin and Ukrainian President Volodymyr Zelensky, **Indian Prime Minister Narendra Modi has emphasized the need for a cessation of violence**. This diplomatic engagement highlights India's intention to act as a mediator, even as it refrains from taking a definitive side.

Read- [India-Ukraine Relations- Significance and Challenges- Explained Pointwise](#)

What is the significance of PM's recent visit to Ukraine and India's intention of mediation?

- Balancing act-** The recent visit by the Indian PM is seen by analysts as a balancing act by India, especially after the **PM's recent visit to Russia**, which **attracted criticism from western powers**.
- Positioning as a neutral player-** By engaging with both Russia and Ukraine, India could position itself as a neutral player in the conflict. This would reinforce its image as a responsible global actor committed to peace and stability.
- Broader strategy to play a more active role as a mediator-** This balancing approach aligns with India's historical role as a mediator in international conflicts, in the **Korean War armistice negotiations** and the **Colombo Plan**. India seeks to leverage its unique position as a country that maintains strong ties with both Moscow and Washington, to play a more active mediation role.
- Reinforcing the leadership of the Global south-** India's proposal at mediation, puts weight to the already ongoing effort from Global South countries in the negotiation. The push from India reinforces its prominence in the Global South.

Read More- [India-Russia Relations- Significance and Challenges- Explained Pointwise](#)

What will be the advantages of peace in the Russia-Ukraine Conflict?

A **temporary cessation of hostilities** or a **limited peace agreement facilitated by a neutral party** such as India might serve the interests of all parties involved.

- United States-** For the United States, peace in the Russia-Ukraine crisis allows it to focus on other pressing foreign policy challenges, such as the **West Asian geopolitical challenges**.
- European countries-** The peace would help in the **economic reconstruction** and **addressing energy insecurity**. The peace in the Russia-Ukraine crisis would alleviate the challenges of energy shortages and inflationary pressures, and provide breathing room for European policymakers.
- Russia-** For Russia, engagement in negotiations through a neutral party such as India could offer an **honourable exit from the conflict/war** without **appearing to surrender to western pressure**.
- India-** India's success as a mediator in the resolution of the conflict **would align with his broader vision of India as a "Vishwamitra"**, a country that contributes to global economic and technological advancements and plays a central role in maintaining international peace and security.

What are the challenges that India would face as a mediator in the Peace Process?

- 1. Maximalist position from both the sides-** Both Russia and Ukraine remain focused on military gains, as seen by **Russia's attacks on Ukraine before PM Modi's Moscow visit** and **Ukraine's operations in Kursk Oblast before his Kyiv visit**. The refusal of either parties to budge from their stands is a major challenge in the peace process.
- 2. Competing Demands-** The situation is complicated by the **firm positions of both sides**: President Zelenskyy demands a complete Russian withdrawal from Ukraine, while President Putin requires Ukraine to pull back from occupied regions and drop its NATO membership bid.
- 3. Conflicting interests of multiple actors-** The **involvement of various international actors in this war**, highly complicates any negotiation process for peace in the Russia-Ukraine Crisis.
- 4. Deeply entrenched interests-** The **geopolitical interests of the U.S. and Russia are deeply entrenched**, and both powers are unlikely to agree on a peace deal proposed by the other.

What should be the way forward?

- 1. Realistic assessment-** Indian foreign policy establishment needs to make a realistic assessment whether Ukraine and its Western partners want India to get actively engaged as a mediator in the peace process.
- 2. Effective Conflict Mediation-** India needs to define its own principles for a ceasefire and lasting peace. India should derive learnings from effective mediations like the **Black Sea Grain Initiative** and recent **prisoner exchanges**.
- 3. Learning from Historical Mediation Successes-** India should also derive learnings from its successful interventions as a mediator in the **Austria- Soviet crisis in 1950**, **Korean War Armistice negotiations** and the **Colombo Plan**.
- 4. Overcoming Perceptions of Partiality-** For effective mediation of the conflict, India should overcome perceptions of partiality towards Moscow.

Read More- [The Hindu](#)

UPSC Syllabus- GS 2- International Relations

INS Arighat and India's Nuclear triad- Significance and Challenges- Explained Pointwise

Recently, **INS Arighat**, Indian Navy's **second Nuclear Submarine**, was commissioned into the **Indian Navy**. The induction of INS Arighaat aims to **further strengthen India's nuclear triad**, **enhance nuclear deterrence**, help in **establishing strategic balance** and peace in the region, and play a **decisive role in the security of the country**.

In this article, we will focus on INS Arighaat and India's nuclear triad. We will look into the significance of INS Arighaat and India's nuclear triad. We will also look at how the India's nuclear triad enhance India's nuclear deterrence capabilities. We will also look into the challenges in further development of India's deterrence capabilities, and the way forward to address these challenges.



India's Nuclear Triad

Sea Based Deterrence	
INS Arihant	India's first indigenous Ballistic Missile Submarine (SSBN) . The induction of INS Arihant into the Navy in 2016 provided India with maritime strike capability for the first time. INS Arihant conducted its first deterrence patrol in 2018 , thus establishing India's nuclear triad.
INS Arighat	INS Arighat is India's second indigenously built nuclear-powered ballistic missile submarine (SSBN) . It is the successor of India's first nuclear-powered submarine, INS Arihant.
S-4	India's third indigenous nuclear ballistic missile submarine (SSBN) after INS Arihant and Arighat, with more space for nuclear-tipped ballistic missiles.
Land Based Deterrence	
Agni Series	These ballistic missiles are among India's most prominent strategic weapons . The series includes Agni-I (700-1,250 km range) , Agni-II (2,000-3,000 km range) , Agni-III (3,000-5,000 km range) , Agni-IV (4,000 km range) , and Agni-V (5,000 range and Multiple Independent Re-entry Vehicles tech)
Prithvi Series	Prithvi series comprises short-range ballistic missiles which can carry both conventional and nuclear warheads.
Shaurya	Land-based hypersonic missile designed to deliver nuclear payloads with precision at hypersonic speeds within range of around 700-1,000 km
Air Based Deterrence	
Rafale	Rafale aircraft has provided the Indian Air Force with a sophisticated aircraft with nuclear-warhead-carrying capability

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What is INS Arighat? What are the features of INS Arighat?

About	INS Arighat is India's second indigenously built nuclear-powered ballistic missile submarine (SSBN). It is the successor of India's first nuclear-powered submarine, INS Arihant. However, it is significantly more advanced than its predecessor, INS Arihant , due to the indigenous technological advancements incorporated into it.
Built By	The submarine was constructed at the Indian Navy's Ship Building Centre (SBC) in Visakhapatnam.
Features	<ol style="list-style-type: none"> Nuclear Powered- Both the INS Arihant and the INS Arighat are powered by 83 MW pressurised light-water nuclear reactors. This enables them to remain submerged for longer durations compared to conventional diesel-electric submarines, which need to surface regularly to charge their batteries. Nuclear Tipped Missiles- Like its predecessor, the INS Arighat has four launch tubes in its hump. It can carry up to 12 K-15 Sagarika submarine-launched ballistic missiles (SLBMs), each with a range of 750 kilometres (km), or four K-4 SLBMs with a range of 3,500 km. Speed and size- The INS Arighat, with a displacement of around 6,000 tonnes, is capable of achieving a maximum speed of 12-15 knots (22-28 km/h) on the surface and up to 24 knots (44 km/h) when submerged. Advanced Stealth Technology- The submarine features advanced stealth technology to reduce its detectability by enemy sonar systems. Its design incorporates lessons learned from INS Arihant, improving its operational effectiveness and survivability.

What is Nuclear Triad? What is Nuclear Deterrence and the history of development of Nuclear Deterrence?

Nuclear triad- Nuclear triad refers to a country's **ability to launch nuclear missiles** from **platforms** in the **air, land, and at sea**.

India's nuclear triad- India is **part of a select group of countries with nuclear triad** capabilities. These countries include the United States, Russia, China, and France.

Sea Based Deterrence	
INS Arihant	India's first indigenous Ballistic Missile Submarine (SSBN). The induction of INS Arihant into the Navy in 2016 provided India with maritime strike capability for the first time. INS Arihant conducted its first deterrence patrol in 2018 , thus establishing India's nuclear triad.
INS Arighat	INS Arighat is India's second indigenously built nuclear-powered ballistic missile submarine (SSBN). It is the successor of India's first nuclear-powered submarine, INS Arihant.
S-4	It will be India's third indigenous nuclear ballistic missile submarine (SSBN) after INS Arihant and Arighat. The S-4 submarine will be bigger than the INS Arihant and Arighat, with more space for nuclear-tipped ballistic missiles.
Land Based Deterrence	
Agni Series	The Agni series of ballistic missiles are among India's most prominent strategic weapons . The series includes Agni-I (700-1,250 km range), Agni-II (2,000-3,000 km range), Agni-III (3,000-5,000 km range), Agni-IV (4,000 km range), and Agni-V (5,000 range). Agni-V, intermediate-range ballistic missile (IRBM) with Multiple Independent Re-entry Vehicles , capable of reaching targets as far as Europe and China.

Prithvi Series	Developed by DRDO, the Prithvi series comprises short-range ballistic missiles designed for tactical use. These missiles, including Prithvi I (150 km range) and Prithvi II (250-350 km range), can carry both conventional and nuclear warheads , providing India with a flexible deterrence option against regional threats.
Shaurya	Shaurya is a land-based hypersonic missile developed by India, designed to deliver nuclear payloads with precision at hypersonic speeds. Its range is around 700-1,000 km , enhancing India's deterrence capabilities by introducing a fast and maneuverable delivery system.
Air Based Deterrence	
Rafale aircraft	The induction of the Rafale aircraft has provided the Indian Air Force with a sophisticated aircraft with nuclear-warhead-carrying capability .

Nuclear Triad aids in bolstering Nuclear Deterrence capabilities

Nuclear Deterrence- Nuclear deterrence is a **strategy employed by states possessing nuclear weapons to prevent adversaries from initiating a nuclear attack** by convincing them that the costs and consequences of such an attack would outweigh any potential benefits.

Principle Behind Nuclear Deterrence- Nuclear Deterrence operates on the **principle of Mutually Assured Destruction (MAD)**, where both sides possess sufficient nuclear capabilities to inflict unacceptable damage on each other, thereby deterring any hostile actions.

India's Nuclear Policy and Nuclear Deterrence- Maintenance of credible nuclear deterrence is one of the foremost priorities of India's Nuclear Policy.

a. Credible Minimum Deterrence- India would maintain a **sufficient number of nuclear weapons** to deter a nuclear attack, but it would not seek to match other countries' arsenals in size.

b. Retaliation to a Nuclear Attack- If India is **subject to a nuclear attack**, it would retaliate, causing massive damage to the aggressor.

Development of India's Nuclear Deterrence

1947	Post Independence, India pursued development of nuclear weapons capability, particularly in light of regional tensions and the emergence of nuclear-armed neighbours , namely China and Pakistan.
1974	India conducted its first nuclear test, codenamed ' Smiling Buddha '. This test demonstrated India's nuclear deterrence capabilities.
1974-1998	During this phase, India maintained nuclear ambiguity , neither confirming nor denying the possession of nuclear weapons. This ambiguity served as a form of deterrence, maintaining uncertainty about India's nuclear status.
1998	The Pokhran Tests of 1998 , which comprised of five nuclear detonations, both fission and fusion, marked India's evolution as a nuclear weapons state.
After 1998 Tests	Following the 1998 tests, India outlined its Nuclear Doctrine. The key elements of India's nuclear doctrine include a No First Use (NFU) policy, minimum credible deterrence , and retaliation only in the event of a nuclear attack. India has worked to develop Nuclear Triad for enhancing India's Nuclear Deterrence. India also established Strategic Forces Command (SFC) to oversee the management, deployment, and operational control of India's nuclear forces.

What is the Significance of INS Arighat?

1. **Boost to India's nuclear deterrence capabilities-** Induction of INS Arighat, the second nuclear-powered submarine of the Arihant class, **significantly boosts India's nuclear deterrence capabilities.**
2. **Enhances regional security-** It strengthens the nuclear triad, the ability to launch missiles from land, air, and maritime platforms. Its deployment **enhances regional security** and contributes to India's strategic influence.
3. **Survivability and execution-** These submarines have the **ability to survive a surprise attack** and execute retaliatory strikes, given India's "**no-first use**" nuclear policy,
4. **More advanced-** The Arighat is significantly **more technologically advanced than the Arihant**, with the indigenous systems and equipment which were conceptualised, designed, manufactured and integrated by Indian scientists, industry, and naval personnel.

What are the Challenges with India's Nuclear Deterrence?

Sea Based Deterrence Challenges

1. **India's sea based deterrence smaller than foreign counterparts-** The **United States (US), Russia, United Kingdom (UK), France, and China** possess **larger nuclear submarines** with longer-range missiles. **For ex- China has 12 nuclear submarines**, of which six are nuclear-powered attack submarines. The United States has **14 Ohio-class SSBNs and 53 fast-attack submarines.**
2. **Large percentage of submarine fleet under maintenance-** Around **30 per cent of the fleet** is under refit (repair and renovation), which has brought down the strength of operational submarines.

Other Deterrence Challenges

1. **Inadequate nuclear testing facilities-** The **lack of sufficient testing** undermines the extent to which the re-entry vehicles could be designed to carry the warheads.
2. **Opacity surrounding the warhead numbers-** There is **opacity around the number of warheads, Agni-V**, can carry due to its classified nature. However, specialists suspect that it at present, it can carry at most only three warheads.
3. **Low yield of the nuclear Warheads-** There are concerns that the **yield of the nuclear warheads is limited** due to the small number of atomic tests conducted by India.
4. **Problems with Sea based nuclear deterrence-** There are **problems of deep-sea communications with SSBN** because the **very low-frequency systems in use on the submarine** are prone to disruption at great depths.
5. **Swift Expansion of Chinese Nuclear Arsenals-** Beijing has been **making brisk advancements with its missile and missile defence programmes.**

What Should be the Way Forward?

1. **Early testing of long-range Submarine Launched Ballistic Missile (SLBM)-** India must add punch to its nuclear arsenal by **testing its long-range Submarine Launched Ballistic Missile (SLBM)** which can be launched by its nuclear submarines.
2. **Investment in Missile Defence Systems-** To counter the growing threat from **China's modernizing nuclear arsenal**, India **should invest in developing and deploying advanced missile defence systems**, like expediting development of Agni VI.

3. Strengthening of Conventional Capabilities- While maintaining a credible nuclear deterrent, **India should also focus on strengthening its conventional military capabilities.** This can help deter conventional conflicts that may escalate to the nuclear level.

4. Cooperation with Allies- India should continue to cooperate with its allies and partners, **such as the United States,** to deter potential aggressors. This could involve sharing intelligence, conducting joint military exercises, and coordinating on defence strategies.

Read More- [The Indian Express](#)

UPSC Syllabus- GS 3- India's achievement in Science and Tech

GS 2- India and its neighbourhood relations