

7 PM COMPILATION

3rd and 4th Week June, 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
- ❖ Wide use of charts, diagrams and info graphics
- ❖ Best-in class coverage, critically acclaimed by aspirants
- ❖ Out of the box thinking for value edition
- ❖ Best cost-benefit ratio according to successful aspirants

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Protection of Women from Sexual Harassment Act (POSH Act)-Significance and concerns- Explained Pointwise

Sexual Harassment at the workplace is **one of the major issues faced** by women in the modern world. **Protection of Women from Sexual Harassment Act (POSH Act)** was enacted to effectively counter the sexual harassment cases in India. While there has been a rise in the cases registered under this act, SC has also raised concerns regarding some serious lapses and uncertainties surrounding the Act.

What is the status of sexual harassment at workplace in India?

According to a survey conducted by the **Indian National Bar Association** of over 6,000 employees in 2017. According to the survey, **sexual harassment is widespread in different job sectors**. The sexual harassment varies from vulgar comments to an outright demand for sexual favours.

According to the **Ministry of Women and Child development between 2015-2017**, a total of **1631 cases** had been filed under the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013. There has been a **wide disparity among states**, with Uttar Pradesh recording for nearly 25% of all cases, followed by Delhi (16%).

What is the POSH Act? What are the important provisions of the Protection of Women from Sexual Harassment Act (POSH Act)?

About the Act- The POSH Act is a legislation enacted by the **Government of India in 2013** to **address the issue of sexual harassment faced by women** in the workplace. The Act aims to create a safe and conducive work environment for women and provide protection against sexual harassment.

Background of Enaction- The Supreme Court in the landmark judgment in the **Vishakha and others v State of Rajasthan 1997** case gave the '**Vishakha guidelines**' for prevention of sexual harassment at workplace. India has also signed the **CEDAW (Convention on the Elimination of all Forms of Discrimination against Women)** 1980. India has also ratified the convention later.

The POSH Act was enacted to give a statutory and a legal backing to these guidelines and Conventions.

Important Provisions of the POSH Act

1. Definition of Sexual Harassment- The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 (POSH Act) **defines sexual harassment as one or more of the following unwelcome acts or behavior**. Such as

- (i) physical contact and advances; or
- (ii) a demand or request for sexual favours; or
- (iii) making sexually colored remarks; or
- (iv) showing pornography; or
- (v) any other unwelcome physical, verbal or non-verbal conduct of sexual nature;

2. Prevention and Prohibition- The Act places a **legal obligation on employers** to **prevent and prohibit sexual harassment** in the workplace.

3. Internal Complaints Committee (ICC)- The employers are required to constitute an **Internal Complaints Committee (ICC)** at each workplace with **10 or more employees** to receive and address complaints of sexual harassment. The Complaints Committees **have the powers of civil courts** for gathering evidence.

4. Duties of Employers- According to the Act, the employers must **undertake awareness programs, provide a safe working environment**, and **display information about the POSH Act** at the workplace.

5. Complaint Mechanism- The POSH Act lays down a **procedure for filing complaints, conducting inquiries, and providing a fair opportunity** to the parties involved.

6. Penalties- Non-compliance with the Act's provisions can result in penalties, including fines and cancellation of business licenses.

What is the Significance of the Prevention of Sexual Harassment at Workplace Act in India?

1. Ensures Emotional Well-Being of women- Sexual harassment **can endanger the victim's emotional and mental health**. It can lead to the **loss of self-esteem**, and it **may even compromise personal relationships**. Hence, the Act aims to ensure the emotional well-being of women in India.

2. Improved Physical Health- Weak emotional health often leads to **physical health issues**, such as **loss of appetite, headaches, weight fluctuations, and sleep disturbances**. Hence, the Act aims at improving the physical health of women in India.

3. Ensures protection of women against Financial hardships- Sexual harassment frequently leads to **financial hardship and challenges** due to loss of job references and hostile work environment. **For ex-** According to a study led by the ILO, **lewd behaviour and threatening at workplaces** were the most well-known reasons due to which women left the workforce in Uttar Pradesh.

4. Protection against economic losses- **Low productivity, low employee turnover, low morale, and high legal costs arising from sexual harassment** costs millions of Dollars. The economy also suffers due to premature retirement and higher insurance costs (paid if women left the job).

What are the challenges with the POSH Act cases in India?

The Supreme Court of India has recently raised several serious lapses and uncertainties in the implementation of the POSH Act. These are mentioned as followed-

1. Non-compliance of Companies and organisations- There are many private companies and organisations which have not constituted an Internal Complaints Committee (ICC) to look into the complaints of sexual harassment at the workplace. **For ex- Only 16 out of 30 national sports federations had constituted Internal Complaints Committees (ICCs)** as mandated.

2. Improper constitution of ICCs- The majority of the ICCs either have an inadequate number of members or lack mandatory external member. Most of the committees lack people who have knowledge about **legal technicalities involved in conducting the inquiry, cross-examinations, and its importance**.

3. Lack of Gender Neutrality- The law does not take into account **sexual harassment** faced by **men, transgender, and transsexual individuals**.

4. Exclusion of certain categories of women- The Act does not cover **women working as agricultural workers and in the armed forces**. These are **largely male-dominated sectors**.

5. Fear of Victimization- Victimization in sexual harassment often occurs, when a woman lodges a complaint against a superior. The POSH Act is **silent on victimisation** and **has neither any preventive provisions nor any remedies**. **For ex-** A survey revealed that **nearly 70% of women did not complain** due to fear, embarrassment, lack of confidence in complaint mechanism etc.

What are the other women initiatives for safety of Women?

One Stop Centre Scheme	It is a centrally sponsored scheme for addressing the problem of violence against women . It was launched in April 2015.
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UJJAWALA	It is a comprehensive scheme for Prevention of trafficking and Rescue, Rehabilitation and Re-integration of Victims of Trafficking and Commercial Sexual Exploitation.
SWADHAR Greh	The scheme through the provisions of shelter, food, clothing, counseling, training, clinical and legal aid , aims to rehabilitate women in difficult circumstances.
Nari Shakti Puruskar	The Ministry of Women and Child Development announces these national level awards for individuals/ groups/ Non-governmental Organisations (NGOs)/ institutions for encouraging women to participate in decision making roles.

What Should be the Way Forward?

Justice JS Verma committee has recommended several changes to the POSH Act. The important recommendations are as follows-

- 1. Wider definition of rape-** The committee has recommended to view rape and sexual assault as not merely a crime but also as an expression of power. So, **any non-consensual penetration of a sexual nature has to be included** in the **definition of rape.**
- 2. Replacement of ICC with tribunal-** The committee has **recommended the establishment of a tribunal**, instead of an ICC. Because dealing with such complaints internally could discourage women from complaining.
- 3. Inclusion of excluded women-** POSH Act should be amended to **include women in armed forces, agriculture to get their grievances redressed.** The Act should focus on gender-neutral.
- 4. Punishment of companies for non-compliance-** The government must form a committee to identify the **companies not formed the ICC, companies victimizing the women.** These companies must be financially penalized or name and shamed to make them compliant to the provisions of the Act.
- 5. Creation of Gender equity company index-** The government should aim to **create a Gender equity company index** like **LGBT+ workplace equality index.** This will create a healthy gender-sensitive competition among companies to hire more women, and provide them with enough respect.
- 6. Raising awareness-** Government needs to raise the awareness about **gender-sensitive child-rearing practice.** The government can also introduce **a gender-equity syllabus at school level.** Further, the Act must be enforced diligently to ensure the dignity and respect that women deserve at the workplace.

Read More- The Hindu

UPSC Syllabus- GS Paper 1- Issues related to women

G7 and India- Significance and Challenges- Explained Pointwise

The Prime Minister of India attended the **50th Summit of G7 group** which was held in from **13 to 15th June 2024.** India is not a member of the G7. However, India participated as a guest in the 2019, 2021, and 2022 G7 summits at the invitation of France, the UK, and Germany respectively. This reflects **India's rising global stature** and the **recognition of its role as a major economic and geopolitical actor.** The association of India with G7 comes with its own advantages and challenges. **G7 Importance in India**

Some Key Outcomes of G-7 Group Summit

- 1. Promotion of G7 PGII (Partnership for Global Infrastructure and Investment)-** Under this PGII, G7 will **mobilise USD 600 billion by 2027** to deliver infrastructure projects to developing and middle-income

countries.

2. Support and Promotion to India-Middle East-Europe Economic Corridor (IMEC)– G-7 nations committed to promoting the IMEC. It also forms part of the PGII initiative.

3. Support to Infrastructure Projects- G7 also extended support for the **Lobito Corridor in Central Africa** and **Luzon Corridor** and the **Middle Corridor**.

4. Enhancing Interoperability of AI Governance- G7 countries aim to **enhance interoperability amongst their AI governance approaches** to promote greater certainty, transparency and accountability.

5. Extraordinary Revenue Acceleration (ERA) Loans for Ukraine- The G7 countries agreed to provide financing of approximately **USD 50 billion in additional funding** to Ukraine by the end of 2024.

What is the G-7 Group? What are the achievements of the Grouping?

G-7- G-7 is a group of the most developed and advanced economies of the world. The members of the G7 group are **France, Germany, Italy, the United Kingdom, Japan, the United States, and Canada**. Summits are held annually and hosted on a rotation basis by the group's members.

Origin-

a. The G-7 originated from the **Oil crisis of 1973** and **the resulting financial crisis**, which forced the leaders of **6 major industrial nations** to convene a meeting in 1975.

b. The participating countries were the **US, UK, France, West Germany, Japan, and Italy**. Canada joined in 1976, leading to the formation of the G-7.

c. It was known as the '**G8**' for several years after the original seven were joined by Russia in 1997. However, it was renamed as **G-7 after Russia was expelled as a member in 2014** following its annexation of the Crimea region of Ukraine.

Significance of the G7 Grouping

1. Grouping of advanced economies- G7 group controls **60% of global net wealth** and drives **46% of global GDP**. It also represents **10% of the world's population**.

2. Facilitates Dialogue- The G7 acts as a **forum for member nations** to have **open and frank discussions on critical global issues**. This allows them to understand different perspectives and build consensus.

3. Forges Collective Action- G7 aims to **develop coordinated political responses** to global challenges. This involves collaborative efforts on issues like **trade agreements, security threats, or climate change initiatives**.

4. Innovations in Governance- The introduction of initiatives like the "**Hiroshima AI Process**" highlights the G7's role in addressing emerging technological challenges.

5. Global crisis response- G7 has coordinated actions on global economic recoveries, health emergencies like the **COVID-19 pandemic**, and geopolitical conflicts including the **Russian invasion of Ukraine**.

What are the Challenges that the G-7 Group faces?

1. G7 is not representative in current times- In the initial years, it accounted for **2/3rd of global GDP**. However, the G-7 group now accounts **only for 1/3rd on PPP basis** and less than **50% on nominal basis (market prices)**. The emerging 7 (E7) economies of India, China, Indonesia, Brazil, Mexico, Russia, Turkey are not part of it.

2. Failure in tackling Global issues- G7 failed in tackling global issues and challenges of **Climate change, terrorism, West Asian crisis, COVID 19 pandemic**.

3. Historical Polluters- G-7 accounts for 59% of historical CO2 emissions and pledged phase out fossil fuels. There has been no visible progress of the same and they currently account for twice the CO2 emission than African continent.

4. Trade Conflicts- Trade disputes among G7 members and with other countries disrupt global economic stability. Weakening of rules based of trade regime through WTO and trade wars has active role of G7 countries.

5. Populism and Nationalism- The rise of populist and nationalist movements within G7 countries challenge multilateral cooperation and the G-7 group's commitment to globalism and liberal democratic values.

What is the significance of India's association with G-7 Countries?

1. India's Economic Significance- According to the IMF, India is one of the fastest-growing economies in the world. India's economy is larger than 4 G-7 member countries – France, Italy, the UK and Canada. India's abundant young and skilled workforce, coupled with its market potential, low manufacturing costs, and favourable business climate, makes it an attractive investment destination.

2. India's growing strategic Importance in the Indo-Pacific- India has emerged as a major strategic partner for the Western G-7 countries. This has helped in containing China's expanding influence, particularly in the Indian Ocean.

3. India's Role in Addressing the European Energy Crisis- India's ability to secure discounted Russian oil and supply refined fuels to Europe has made it an important player in addressing the European energy crisis.

4. India's Potential for Mediating the Russia-Ukraine Conflict- India's long-standing relationships with both Russia and the West makes it a potential mediator in the Russia-Ukraine Conflict.

5. Regulation of AI- India has been an active participant in the debate on the global regulation of AI. With the focus of G-7 countries on the regulation of Artificial Intelligence, India's association with G-7 countries can help in the development of a common global framework for AI.

What are the Challenges with India's further deepening of engagement with G-7 Countries?

1. Escalating conflict in Europe- With the escalation of conflict in Europe, India finds it hard to duck its consequences. This is reflected in the choice of Indian PM to stay away from the Ukraine peace conference in Switzerland that took place after the G7 summit.

2. Defence Dependence on Russia- India's reliance on Russia for over 60% of its military equipment creates a complex situation. A strained West-Russia relationship could disrupt supply chains and force India to diversify its defence partnerships.

3. Economic Interdependence- Deep economic ties with both the US and China makes it difficult for India to balance its trade relations with both these countries.

4. Geopolitical Rivalry- The intensified competition between the US and China in the Indian Ocean region forces India to take sides on issues that don't directly align with its national interests.

5. Non Inclusion of India as a permanent member- G-7 has an obsolete membership structure which does not include the emerging economies like India.

What Should be the Way Forward?

India's evolving relationship with the G7 signifies its growing importance in global economic and strategic affairs. The synergies between India and G7 nations, driven by shared values and mutual interests, present vast opportunities for collaborative growth. As India continues to rise on the global stage, its partnership with the

G7 will play a pivotal role in shaping a balanced and inclusive world order. Following should be the way forward-

1. Deepening Economic Ties- Encouraging investment in sectors like **renewable energy, technology, infrastructure** and **enhancing trade liberalization efforts** can bolster economic relations between India and G-7 group.

2. Strategic Collaborations- Strengthening defense cooperation through **joint exercises, intelligence sharing,** and **technology transfers** can address common security challenges.

3. Multilateral Engagement- India's active participation in G7 forums can contribute to shaping inclusive global governance frameworks. **Joint efforts in climate action, focusing on sustainable development and green technologies,** can set benchmarks for global environmental policies.

4. Technological Innovation- Collaborative efforts in **digital infrastructure development, cybersecurity,** and **artificial intelligence** can drive the next wave of technological advancements. Joint research initiatives in fields like **biotechnology, space exploration,** and **renewable energy** can foster innovation.

[Read More- The Indian Express](#)

UPSC Syllabus- GS Paper 2- Important International Organisations








The Issue of Indian Railway Safety- Explained Pointwise

The Issue of Indian Railway safety is **again under scrutiny** with the **recent incident of freight train ramming into a passenger train,** near Siliguri in West Bengal, which left at least nine people dead and more than 40 injured. Last year, the **tragic Balasore train accident** also highlighted the grim situation of railway safety prevailing in the country. These accidents highlight the **urgent need for comprehensive reforms** and **improved safety protocols** to ensure the well-being of passengers and prevent such devastating accidents in the future.

What are the previous train accidents due to lapses in Indian railway safety?

Deadliest train accidents in India

Source: PTI | The Hindu Graphics

	<p>Purushottam Express Deaths: 305 Aug. 20, 1995: Crashed into the stationary Kalindi Express near Firozabad in Uttar Pradesh</p>
	<p>Jammu Tawi-Sealdah Express Deaths: 212 Nov. 26, 1998: Collided with three derailed coaches of Frontier Golden Temple Mail in Punjab's Khanna</p>
	<p>Jnaneswari Express Deaths: 148 May 28, 2010: The Mumbai-bound train derailed near Jhargram in West Bengal and hit by an incoming goods train</p>
	<p>Pamban-Dhanushkodi train Deaths: 126 Dec. 23, 1964: Washed away by the Rameswaram cyclone</p>
	<p>Howrah Rajdhani Express Deaths: 140 Sep. 9, 2002: Derailed over a bridge on the Dhave river in Bihar's Rafiganj, blamed on terrorist sabotage</p>
	<p>Brahmaputra Mail Deaths: 285 Aug. 2, 1999: Crashed into the stationary Avadh Assam Express at Gaisal station</p>
	<p>Indore-Rajendra Nagar Express Deaths: 152 Nov., 2016: 14 coaches derailed at Pukhrayan, approximately 60 km from Kanpur in Uttar Pradesh</p>

Source- The Hindu

According to the National Crime Records Bureau, an average 23,000 people died every year between 2010 and 2021 in railway accidents.

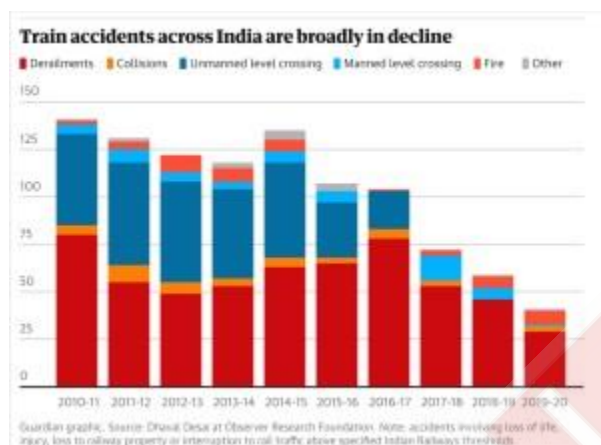
Derailments	Derailments have been a major cause of train accidents in India. Lapses in safety protocols, track maintenance, and failure to identify and rectify track defects have resulted in derailments. For ex- The derailment of the Puri-Haridwar Utkal Express in 2017 , which claimed 23 lives and injured many, was attributed to negligence in track maintenance.
Collisions	Train collisions have occurred due to lapses in signalling systems, human errors, and failure to maintain safe distances between trains. For ex- Collision between the Gorakhdham Express and a halted goods train in Uttar Pradesh, in 2014, resulting in a high number of casualties and injuries.
Signal failures	Malfunctioning or improper signalling systems have been responsible for train accidents. Inadequate maintenance, faulty equipment, and human errors in signalling operations have resulted in collisions and other mishaps. For ex- The collision of two trains in Gaisal, West Bengal (1999), occurred due to a signalling error.
Level crossing accidents	Lapses in ensuring the safety of level crossings have led to accidents involving trains and road vehicles. Failure to eliminate manned level crossings, inadequate warning systems, and negligence in adhering to safety procedures have contributed to such accidents. For ex- Train-bus collision in the Kanshiramnagar district of Uttar Pradesh , which killed 38 people and injured 17 people.
Overcrowding and overspeeding	Overcrowding of trains beyond their capacity and overspeeding have also led to accidents. Lack of proper crowd management and failure to enforce speed limits have been significant safety concerns. For ex- The 2018 Amritsar train accident , where a train struck a crowd watching a Dussehra event near the railway tracks, causing numerous fatalities, highlights the risks associated with overcrowding.

Why the safety of Indian Railways is paramount?

- 1. High volume of passengers-** India is the fourth-largest rail network in the world at **68,043 km** and almost **3.5 billion people** travel on this network annually. With a **massive population** and **millions of people relying on the railways for their daily commute**, ensuring the safety of Indian Railways becomes crucial.
- 2. Economic impact-** Indian Railways is a crucial component of the country's transportation infrastructure and plays a vital role in the economy. **Any disruption** or **safety-related issues can lead to economic setbacks**, affecting industries, businesses, and overall development.
- 3. Lifeline for economic migrants-** Trains are the **lifeline for a bulk of India's poorer economic migrants**. The economic survey used unreserved railway travel as a proxy for economic migration between 2011 and 2016 and concluded that the annual average inter-state migration was close to nine million.
- 4. Reputation and public trust-** The safety of Indian Railways is essential to maintain the public's trust and confidence in the system. Instances of accidents and safety lapses **can erode the reputation of the railways** and **result in passengers losing faith** in the reliability and security of train travel.
- 5. International comparison-** Countries like **Japan, China**, and **several European nations** have demonstrated that high safety standards are achievable. The focus on **safety is not only crucial for passenger well-being** but also to align with global best practices and enhance India's image on the international stage.
- 6. Regulatory compliance-** Safety is a regulatory requirement and a legal obligation for Indian Railways. **Adhering to safety protocols** and **regulations is not only necessary** to prevent accidents but also to **comply with**

national and international standards. This ensures that the railways operate within a framework that safeguards the well-being of passengers.

What are various government initiatives to address the Indian railway safety concerns?



Source- The Guardian

Kavach system	KAVACH is an indigenously developed Automatic Train Protection (ATP) System for Indian Railways. It has been deployed on 1,465 route km and 139 locomotives on South Central Railway as on February 2024.
Rashtriya Rail Sanraksha Kosh (RRSK)	The Rashtriya Rail Sanraksha Kosh (RRSK) was set up with a corpus of ₹1 trillion for five years starting 2017-18. It focuses on replacing, renewing, and upgrading critical safety assets.
Project Mission Raftar	It is an Indian Railway project, introduced in the Railway Budget of 2016-17 and approved by NITI Aayog in 2017. The goal is to double the average speed of freight trains and increase passenger train speed by 50% . While the focus is on improving speed , it indirectly contributes to safety by reducing travel time and potentially minimizing the risks associated with prolonged journeys.
Maintenance and Renewals	The railway ministry plans railway maintenance in advance. By November 2023, around 3000 kilometers of track renewals were completed , meeting 66% of the annual target .
Audit reports and recommendations	The Comptroller and Auditor General of India (CAG) periodically conducts audits of Indian Railways, identifying shortcomings and making recommendations to address safety concerns .
Mission Zero Accident	The mission comprises two sub-missions . Elimination of unmanned level crossings- The target is the elimination of all unmanned level crossings on Broad Gauge in the next 3-4 years . This will reduce deaths due to accidents and will improve the throughput of the network. TCAS (Train Collision Avoidance System)- A new technology has been developed to equip 100% of the High-Density Network with TCAS in the next 3 years. It will prevent head-on collisions and also improve throughput with increasing average sectional speeds.

Upgradation of infrastructure	The government has been investing significant funds in the modernization and upgradation of railway infrastructure . This includes the electrification of railway lines, the expansion of rail networks, and the introduction of high-speed and ultra-high-speed lines , such as the Vande Bharat Express.
Implementation of safety measures	Efforts have been made to implement safety measures across the railway network. These include the installation of fire and smoke detection systems in coaches, the provision of fire extinguishers that aids locomotive pilots in triggering the brake system automatically.
Elimination of manned level crossings	The government has been working towards the elimination of manned level crossings , which are prone to accidents. Efforts are being made to replace them with underpasses, overpasses, and other safety measures to enhance railway safety.

What are the challenges in ensuring the safety of Indian railways?

- 1. Technical glitches and system failures-** The occurrence of technical glitches and system failures, such as the **electronic interlocking error in the Balasore train crash**, poses a significant challenge to ensuring the safety of Indian Railways. These issues can lead to **signalling errors, track misalignment, and other critical safety hazards**.
- 2. Funding constraints-** The allocation and utilization of funds for safety-related works face challenges. The **decline in funding for track renewal, diversion of funds to non-priority tasks, and constraints in the Rashtriya Rail Sanraksha Kosh** pose obstacles to effectively addressing safety concerns.
- 3. Inadequate maintenance and inspections-** The **CAG audit reports** highlight **shortcomings in maintenance activities, inspections, and track renewal processes**. Shortfalls in inspections, failure to submit or accept inquiry reports after accidents, and declining funding for track maintenance contribute to safety concerns.
- 4. Congestion and overcrowding-** The Indian Railways network experiences **severe congestion**, especially on **major trunk routes, leading to overcrowded trains and increased risks**. The **high volume of passengers and inadequate capacity utilization** can impact safety protocols and create challenges in managing passenger flow during emergencies.
- 5. Compliance and implementation-** **Ensuring compliance with safety protocols and timely implementation of safety measures** across the vast railway network is a complex challenge. The need for **strict adherence to scheduled timelines** for accident inquiries, **acceptance of inquiry reports, and effective monitoring mechanisms** is emphasized in the reports.
- 6. Human Factors-** Human error, such as **incorrect setting of points, mistakes in shunting operations, and overspeeding**, has been identified as a significant factor contributing to train accidents.
- 7. Incomplete Safety Systems-** The Kavach (Train Collision Avoidance System), though promising, **covers only 1% of the rail network**, insufficient to significantly reduce accidents due to human errors.
- 8. Increased Traffic-** Post-COVID-19, there's a **30% rise in consequential train accidents** due to higher passenger and freight traffic.
- 9. Slow Capacity Expansion-** Delayed infrastructure upgrades strain the system. **For ex-** The **Bahanaga Bazar accident in Odisha** was due to faulty wiring and signaling.

What should be the way Forward?

- 1. Conduction of thorough investigations-** It is essential to **conduct comprehensive** and **timely investigations into train accidents** to identify the root causes and determine accountability. This includes **submitting and accepting inquiry reports** within prescribed timelines and ensuring that the findings are made public for analysis and discussion.
- 2. Strengthen maintenance practices-** **Prioritize track maintenance, inspections, and infrastructure upgrades** to prevent derailments and ensure safe operations. We must implement **mechanized methods of track maintenance** and **leverage improved technologies** to enhance the efficiency and effectiveness of maintenance activities.
- 3. Allocate sufficient funding-** We must ensure **adequate funding for safety-related works, including track renewal, signalling systems, and infrastructure upgrades**. Proper utilization of funds from initiatives like the **Rashtriya Rail Sanraksha Kosh (RRSK)** should be ensured to address safety priorities effectively.
- 4. Enhance staffing and training-** **Address staffing shortages in safety-related positions** and provide **comprehensive training programs for staff members** involved in train operations. Focus on **improving skills, knowledge, and adherence to safety protocols** to minimize human errors.
- 5. Implementation of advanced technologies-** Embrace **advanced technologies, to enhance safety monitoring, early detection of faults, and real-time decision-making**.
- 6. Prioritize safety as a culture-** **Encourage reporting of safety concerns, promote safety awareness and education** among staff and passengers, and **instill a sense of responsibility for safety** in every aspect of railway operations.
- 7. Establish a Safety Regulatory Body-** This would **oversee safety standards**, especially with the increasing inclusion of private operators and new high-speed corridors.
- 8. Leverage Technology and AI-** Adopt more advanced technologies and artificial intelligence to reduce human error and enhance overall safety operations. Successful examples of **Automatic Train Protection Systems**, working in the Mumbai suburban for the last few decades, could be emulated elsewhere.

Read More- [The Indian Express](#)

UPSC Syllabus- GS 3- Infrastructure, Disaster Management

Hindu Kush Himalayas Snow Melting- Reasons and Consequences- Explained Pointwise

According to the **International Centre for Integrated Mountain Development (ICIMOD)** report, the **snow persistence** of the Ganga, the Brahmaputra and the Indus basins in the Hindu Kush Himalayas have reached a **historical low** in 2024. The **low snow persistence** points to **increased snow melting** in the Hindu-Kush Himalayan Region. The accelerated melting is **beyond scientists' projections** and causes **huge challenges** in one of the most populated regions of the world.

Where is the Hindu Kush Himalayas? What is the status of snow persistence in the Hindu Kush Himalayas?

The HKH mountains extend around **3,500 km** over **eight countries**– **Afghanistan, Bangladesh, Bhutan, China, India, Nepal, Myanmar, and Pakistan**. These mountains are also called the 'water towers of Asia' because they are the origins of **10 crucial river systems** on the continent — Amu Darya, Indus, Ganga, Brahmaputra, Irrawaddy, Salween, Mekong, Yangtse, Yellow river, and Tarim.

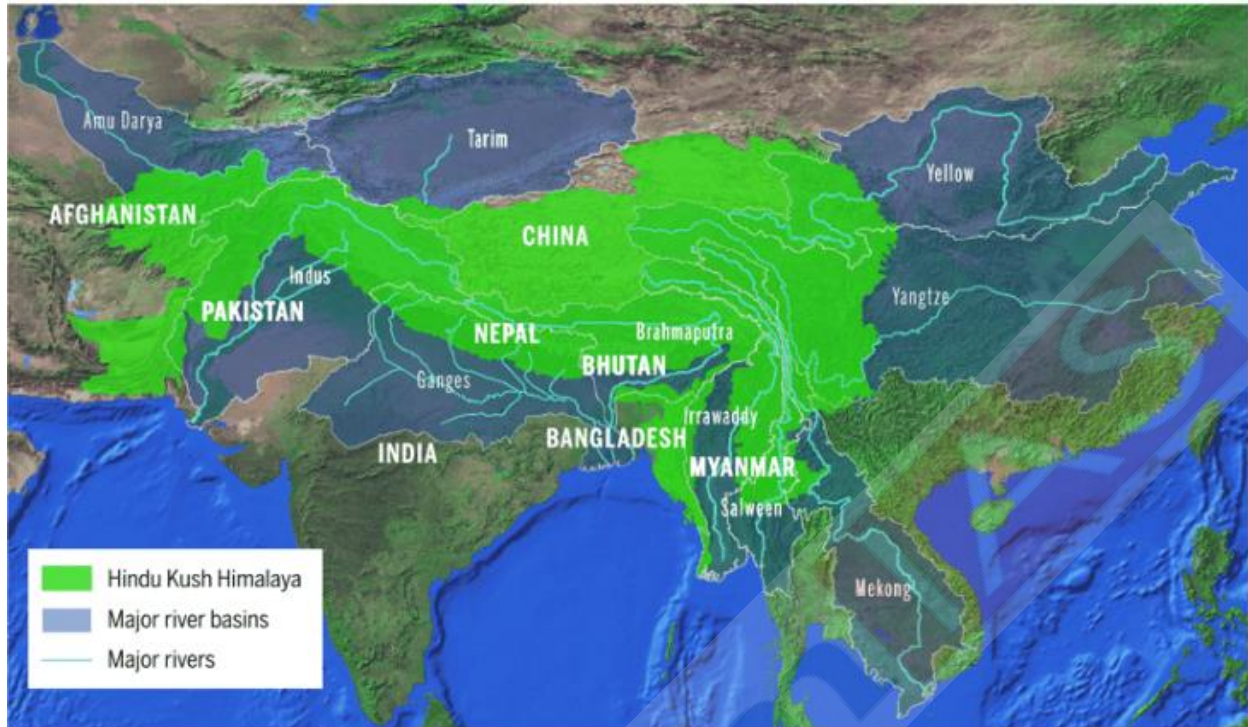


Fig.1: The Hindu Kush Himalaya

Snow Persistence- Snow persistence is the fraction of time, the snow is on the ground. When this snow melts, it provides water to people and ecosystems. In the river basins of the Hindu Kush Himalaya (HKH), snowmelt is the biggest source of water in the streams. Overall, it contributes 23% of the runoff to the region's 12 major river basins every year.

Snow persisting on the ground is important for the Ganga river basin because its melt contributes to 10.3% of Ganga's water as compared to only 3.1% from glacier melts. In the Brahmaputra and the Indus basins, snowmelt brings 13.2% and around 40% of the water, respectively, versus 1.8% and 5% from glaciers.

About the Findings of the Report

- a. 2024 HKH snow update analysed data from 2003 to 2024. It found significant fluctuations in snow persistence between November and April every year, when snow accumulates above ground.
- b. Snow persistence in the Ganga, the Brahmaputra, and the Indus river basins has dropped significantly in 2024. The Ganga river basin noted its lowest snow persistence in 22 years, 17% below the long-term historical average. Snow persistence in the Brahmaputra basin was 14.6% below normal in 2024.
- c. Outside India, the basin of the Amu Darya river– which flows through Central Asia–recorded its lowest snow persistence in 2024, which is 28.2% below normal. The Helmand river, an important source of drinking water for Iran and Afghanistan, was almost 32% below normal in 2024.

What are the major reasons behind the snow melting in Hindu Kush Himalayan regions?

1. Weakened western disturbances- Western disturbances are low-pressure systems that originate over the Mediterranean Sea, the Caspian, and the Black Seas and bring rain and snow to the HKH region in winter. However, the region where these storms originate experienced persistently high sea-surface temperatures.

This **disruption weakened and delayed the arrival of the western disturbance**, resulting in reduced winter precipitation and snowfall in the HKH region.

2. Global Warming- Global warming has **exacerbated, prolonged and intensified** La Niña–El Niño conditions. This has lowered the Hindu Kush Himalayan region's snow persistence capacity.

3. Climate Change- The impacts of climate change are **profoundly being felt in the Hindu Kush Himalayan Regions (HKH)**. The rising temperatures **lead to glacier retreat and changes the snowfall patterns**.

4. Growth of Invasive species- The growth of Invasive species in the Himalayan natural ecosystem has **disrupted the delicate balance of ecosystem** and threatened the survival of native species. **For Ex-** Clusters of purple flowers (**Cirsium arvense**), mats of white clover (**Trifolium repens**) are the threatening invasive species of the Himalayas.

5. Environmental Degradation- **Deforestation, overgrazing, unsustainable land use practices, and infrastructure development** are causing environmental degradation, including soil erosion, loss of biodiversity, and water pollution.

Why is the conservation of Hindu Kush Himalayan Region significant?

1. Water Security- Abundant rainfall, vast snow-fields and large glaciers in Himalayas are the feeding grounds of the mighty rivers of India like Ganga, Brahmaputra. These river basins provide water to almost one-fourth of the world's population and are a **significant freshwater source for 240 million people in the Hindu Kush Himalayan region**.

2. Energy Security- Almost **33% of the country's thermal electricity** and **52% of its hydro power** is dependent on river waters originating in the Hindu Kush Himalayan Regions.

3. Influence on Indian Climate- By virtue of their high altitude, length and direction, the Himalayas help in the sustenance of Indian monsoon. They also prevent the cold continental air masses of Central Asia from entering into India. It helps to **maintain an ambient temperature in the Indian subcontinent** which favours the flourishing of civilisation.

4. Forest Wealth- The Himalayan forests provide fuel wood and a large variety of raw materials for forest based industries. **For Ex- Medicinal plant based pharmaceutical industry.**

5. Cultural and Spiritual Significance- The Hindu Kush Himalayas are regarded as a sacred and spiritual centre by numerous cultures and religions, including **Hinduism, Buddhism and Jainism**.

6. Biodiversity Hotspot- The Himalayan region is recognized as one of the world's biodiversity hotspots and contributes to global ecological balance. **For Ex- Eastern Himalayan Biodiversity hotspot.**

What initiatives have been taken for the conservation of Hindu Kush Himalayan Region?

Recognizing the importance and vulnerabilities of the HKH, several initiatives have been launched to promote conservation, sustainable development, and regional cooperation.

1. Regional Cooperation Framework- The **International Centre for Integrated Mountain Development (ICIMOD)** has been facilitating regional cooperation through its transboundary conservation initiatives. This framework aims to **enhance biodiversity and ecosystem services, reduce poverty through sustainable use of rich biodiversity and sociocultural resources**, and promote transboundary cooperation for sustainable development.

2. Hindu Kush Himalaya Assessment- This comprehensive assessment report, launched in 2019, emphasizes the **need for sustainable development** and **climate resilience of the Hindu Kush Himalayan Region**.

3. SECURE Himalaya Project- It is a part of “Global Partnership on Wildlife Conservation and Crime Prevention for Sustainable Development” (**Global Wildlife Program**) funded by the **Global Environment Facility (GEF)**. It promotes **sustainable management of alpine pastures and forests** in the high range Himalayan ecosystems.

4. India’s National Mission on Sustaining Himalayan Ecosystem- It was **launched in 2010** and **covers 11 states** (Himachal Pradesh, Uttarakhand, Sikkim, all northeast states and West Bengal) and 2 UTs (J&K and Ladakh). It is one of the eight missions under the National Action Plan on Climate Change (NAPCC).

Read More- [Restoring the Ecological Health of the Himalayas- Explained Pointwise](#)

What Should be the way Forward?

1. Reforestation- Reforestation with **native tree species** and removing the invasive species can help the ground retain more snow.

2. Preparation for Water Stress situation- **Better weather forecasting** and early warning systems can help local communities prepare for impending water stress.

3. Collaboration and community involvement- Communities’ involvement in **local, national level decision-making** and **promoting regional cooperation** are vital for comprehensive solutions for the sustainability of snow in the Hindu Kush Himalayan region.

4. Need to lower the emissions- There is a **need to reduce emissions**. This would help in mitigating increasing sea-surface and ground temperatures, both of which lower the persistence of snow. We need to build the political will for our government representatives and business leaders to **cut the cord on dirty fossil energy consumption and production**, especially among G-20 countries, which account for 81% of all emissions.

Read More- [The Hindu](#)

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

Methanol poisoning deaths due to Spurious alcohol in India- Explained Pointwise

The Issue of Methanol poisoning deaths due to Spurious alcohol in India has generated fresh concerns, after the **recent hooch tragedies claimed the lives of 22 people** in the **Villupuram** and **Chengalpattu districts of Chennai**. The methanol poisoning deaths due to spurious alcohol have been a significant concern in India. The need is strict vigilance and enforcement of laws to prevent these unnatural deaths in India.



Source- The Indian Express

How are spurious alcohol produced in India? What are the different cases of Spurious Alcohol related Poisoning Deaths in India?

How does the alcohol become spurious

- 1. Methyl alcohol (methanol) and ammonium nitrate**- Generally the alcohol becomes spurious due to the contamination by **methyl alcohol or methanol** to increase its alcohol content. **Ammonium nitrate** is also a major contaminant.
- 2. Unsafe distillation of Hooch**- **Unsafe distillation** of 'hooch' which is a derivative of cane sugar. The unsafe distillation leads to formation of methyl alcohol, which is dangerous for human health.
- 3. Contamination due to addition of herbs or chemicals**- Certain herbs or chemicals which are added to the liquor to increase the strength or improve the flavor, **react badly with other chemicals**. These lead to formation of deadly chemicals.

Effect of Spurious Alcohol on Health

- 1. Toxicity of Methyl alcohol, or methanol**- Methyl alcohol or methanol, which is commonly used for antifreeze, is added to illicit liquor to increase its alcohol content. Methanol is **highly toxic to humans**, and **ingestion of just 10ml can result in blindness**, and **30ml or more is usually fatal**.
- 2. Adverse impact of ammonium nitrate**- Ammonium nitrate may cause **headache, dizziness, abdominal pain, vomiting, heart irregularities, convulsions, collapse**, and **death**, when swallowed in high concentrations.

Recent Cases of Spurious Alcohol in India

- 1. Bihar**- Bihar, a dry state since 2016, has **witnessed several hooch tragedies**. In early 2023, six people died in Nalanda district. In November 2021, another significant incident in the state led to the death of at least 30 people over three days.
- 2. Haryana**- In November 2023, **six people died in Yamunanagar district** after consuming suspected spurious liquor.

3. Gujarat- Despite its status as a dry state, Gujarat has experienced severe hooch tragedies. In July 2022, more than **22 people died**, and many others fell ill due to consuming spurious alcohol in **Ahmedabad and Botad districts**.

4. Uttar Pradesh- The state has seen numerous hooch-related deaths over the years. In May 2021, **22 people died in the Azamgarh and Ambedkarnagar districts** due to spurious liquor consumption.

What are the negative impacts of methanol poisoning deaths due to spurious alcohol in India?

Health Impacts

1. Acute Poisoning and Death- Spurious alcohol contains methanol, **a toxic substance that can cause severe poisoning** leading to coma and death if untreated.

2. Long-term Health Consequences- Survivors of methanol poisoning may suffer from **permanent blindness, kidney failure**, or other **long-term neurological impairments** due to the toxic effects of methanol on the body's organs.

Social Impacts

1. Family Disruption- The sudden death or severe illness of a family member due to spurious alcohol consumption causes **significant emotional and financial strain on families**. This also leads to **economic instability** and psychological trauma.

2. Crime and Violence- The illegal production and distribution of spurious alcohol **leads to increased crime rates**, which includes violence and corruption.

3. Stigmatization- Victims of spurious alcohol poisoning and their families **often face social stigma**, which impacts their social relationships and community standing.

Economic Impacts

1. Increase in Healthcare Costs- The **treatment of methanol poisoning and its long-term consequences** places a substantial burden on the healthcare system.

2. Loss of Productivity- The deaths and disabilities caused by spurious alcohol consumption lead to a **loss of productive workforce**. This negatively affects local economies and reduces overall economic productivity.

What are the reasons behind the problem of methanol poisoning deaths due to spurious alcohol?

1. Unorganized and unregulated sector- Country-made liquor is **mainly produced by local breweries**. Huge unfulfilled demand for booze drives supply underground into an unregulated industry. This sector is prone to corruption and lack of regulation, which leads to hooch tragedy incidents.

2. Lack of regulatory controls- Illegal or illicit liquor is **manufactured mostly in villages on farmlands where it is difficult to inspect the area** by regulatory authorities. Hence the liquor produced is of substandard quality.

3. Easy availability of contaminants- **Easy availability** of methyl alcohol and **the purchase of furniture polish** by local vendors **at nominal prices** is used to produce illicit liquor.

4. Price- The difference in the **prices of Indian Made Foreign liquor and illegal liquor**, is also one of the main reasons for the rise in spurious liquor, as it fills the demand for booze of population. According to WHO, **'unrecorded and spurious'** alcohol makes up more than half of all alcohol consumed in India.

5. Defiance of state policies- States like Bihar, Gujarat have **enacted total prohibition on alcohol**. However, defiance of state policies, has created a flourishing underground illicit liquor business supported by bordering states.

What measures have been taken to address the problem of illicit liquor in India?

Legal and Regulatory Measures

1. Prohibition Laws- States like Bihar and Gujarat have **implemented complete prohibition laws**. They have banned the sale and consumption of alcohol to curb the production and distribution of spurious liquor .

2. Regulation of Methanol- The Food Safety and Standards (Alcoholic Beverages) Regulations 2018 stipulate the **maximum permissible quantities of methanol** in different types of liquor **to prevent methanol poisoning**.

Enforcement Actions

1. Raids and Seizures- Law enforcement agencies frequently **conduct raids on illegal distilleries and bootlegging operations**. These raids often result in the seizure of large quantities of spurious alcohol and the arrest of those involved in its production and distribution .

2. Legal Prosecutions- Individuals caught producing or selling spurious alcohol **face severe legal consequences**, including **imprisonment and hefty fines**, to deter such activities.

Health Interventions

1. Emergency Medical Response- Training healthcare providers to quickly identify and treat methanol poisoning, including the use of antidotes like **ethanol** and **fomepizole**, which can mitigate the toxic effects of methanol .

What should be the Way Forward to tackle illicit liquor?

1. Targeting of illicit raw material like methanol- The administration should **use local informants and their network to target the vendors** which are responsible for selling sub-standard raw materials and poisonous chemicals used for making spurious liquor.

2. Timely inspections and raids- The state government should **plan regular and massive raids in rural areas** where there is major production of illicit liquor. It would help break down the links of illegal production units.

3. Uniform and comprehensive liquor use policy- A **uniform and comprehensive policy** should bring **uniformity regarding liquor laws** in all states. It should take into consideration measures like **increasing the legal age of drinking, spreading awareness regarding de-addiction and rehabilitation centers & zero tolerance for illicit liquor**.

4. Use of Technology- Utilization of **GPS-equipped vehicles** to track the movement of molasses and alcohol inside the state. **Use of CCTV** in distilleries and retail shops to curb illegal trade.

5. Establishment of Accessible Treatment Facilities- **Establishing more treatment centers** equipped to handle cases of alcohol poisoning, especially in rural and remote areas where spurious liquor incidents are more common.

Read More- [The Hindu](#)

UPSC Syllabus- GS 2- Issues related to Health

National Testing Agency (NTA)- Functioning and Challenges- Explained Pointwise

The **National Testing Agency (NTA)** has been caught in the middle of the storm of the NEET controversy. With the **recent cancellation of the UGC-NET examination**, the reputation of National Testing Agency has further been tarnished. The **complaints of paper leaks, deviations of procedure, irregularities in the examinations** has further creaked the reputation of the agency.



Figure 1. Source- NTA

What is the National Testing Agency? What is its envisaged role?

National Testing Agency- National Testing Agency (NTA) was established as a **Society registered under the Indian Societies Registration Act, 1860**. It is an autonomous and self-sustained testing

organization to conduct entrance examinations for admission/fellowship in higher educational institutions.

Aim- NTA aims to conduct **efficient, transparent and international standardized tests** in order to **assess the competency of candidates** for admission and recruitment purposes.

Composition- NTA is chaired by an eminent educationist appointed by the Ministry of HRD. The CEO of NTA is the Director General to be appointed by the Government. The Director General is assisted by 9 verticals headed by academicians/ experts. NTA consists of a Board of Governors comprising members from user institutions.

What was the intention behind the establishment of National Testing Agency (NTA)?

1. Relieved other agencies from the duty of examination conduction- Establishment of a specialized testing body like NTA has relieved other agencies such as CBSE, AICTE of their responsibilities of conducting Entrance examinations.

2. Incorporation of Online Mode of examination- Some of the examinations such as **JEE Mains are conducted by NTA in the online mode at least twice a year**. This gives enough opportunities to candidates and helps to bring out the best in them.

3. Infrastructure for simulated practice- NTA has also created **online infrastructure** such as a '**mobile app**' and **Test Practice Centres (TPCs)** to help students practice and take mock tests on their own computers or smartphones. It has helped in **democratization of education**.

4. Adoption of global best practices- NTA was designed to **adopt technology** and **best global practices** to bring in high reliability, transparency, and standardized difficulty levels in the examinations. It has collaborated with international organizations like **ETS (Educational Testing Services)**.

5. Implementation of Programme of Action (POA) 1992- Creation of National Testing Agency is to give effect to the **Programme of Action (POA), 1992** which envisaged the concept of a **common entrance exam** on an **all-India basis for admission** to professional programs.

6. Research and Training- NTA was aimed at the **establishment of a strong R&D culture** as well as a **pool of experts in different aspects of testing**. It was also aimed to provide training and advisory services to the institutions in India.

What are the issues with functioning of NTA?

1. Controversies and Irregularities in the conduction of examination- The allegations of irregularities in the **conduct of exams like NEET-UG**, including **suspected question paper leaks, distribution of wrong question papers**, and **technical glitches** have posed serious questions on the integrity of the organisation.

2. High scores and Grace marks- The award of Grace marks to the candidates and **unusual spike in the number of candidates securing full marks in the NEET exam** (67 students securing full 720/720) has raised eyebrows on the procedure adopted by the National Testing agency.

3. Lack of Transparency and Accountability- There have been allegations regarding the **lack of transparency and accountability on part of NTA** to address the concerns of the students. NTA has often been criticized for being an opaque body, lacking transparency in its operations. **For ex- Denial of demands for a CBI inquiry and a retest of the NEET exam** on part of NTA.

4. Operational and Administrative Challenges- The centralised nature of the National Testing agency has created operational and administrative challenges for the agency. Many of the **empanelled test centres by the NTA lack infrastructures like CCTVs** for monitoring the examination process.

5. Reverting to pen-paper mode from the progressive online medium- The reversal to pen and paper mode from the online mode has increased the vulnerability of the examinations conducted by NTA to leaks. **For ex- UGC-NET was an offline exam conducted by the CBSE till 2018**, when it was taken over by the NTA and **became an online exam**. However, it was reverted to offline, pen-and-paper exam, which is potentially more vulnerable to paper leaks.

[Read More- Exam Paper Leaks- Concerns and Way Forward- Explained Pointwise](#)

What should be the way Forward?

1. Full operational transparency in NTA- The institution of **full transparency on part of NTA** in the conduct and **publication of result**, can help it regain trustworthiness in the eyes of candidates.

2. Accountability and punishment of the guilty- The government should take steps to rehaul the NTA's systems and personnel. This will ensure that the **technical glitches, cheating scams, paper leaks, and proxy candidates** that have plagued the exams this year are not allowed to happen again.

3. Dismantling the centralised structure of National Testing Agency- The centralised **structure of the NTA should be dismantled**. This may well curb the Union government's centralising tendencies leading to examinations of enormous scale that are harder to manage in a far-flung nation.

4. Taking help from the State government- For all-India examinations, the States should join the Central Govt in recovering the integrity of the beleaguered examination system. The state governments should also be shared some responsibilities for entrance examinations.

Read More- [The Hindu](#)

UPSC Syllabus- GS 2- Various regulatory and statutory Bodies

Speaker of Lok Sabha- Functioning and Challenges- Explained Pointwise

With the commencement of the 18th Lok Sabha, the office of the pro tem speaker, speaker and the deputy speaker of Lok Sabha has gained prominence. The appointment of seven-time MP Bhartruhari Mahtab as the 'Speaker pro tem' of the 18th Lok Sabha by the president, has already led to tensions between the ruling coalition and opposition. With the election of the speaker slated on June 26, and the reports about office of deputy speaker being offered to one of the NDA allies, it becomes pertinent to look at the powers and functions of these offices.



Source- The Indian Express

What are the process of selection and the roles and responsibilities of the Speaker Pro tem, Speaker and Deputy Speaker of Lok Sabha?

Speaker Pro Tem

Constitutional Provision	Article 95(1) of the Constitution provides for the office of Speaker Pro tem, who has to be appointed by the President. The term 'pro tem' means 'for the time being' or 'temporary'.
Mentions in the Constitution	1. The term 'Speaker Pro tem' is not found in the Constitution or rules of Lok Sabha. It is a conventional term which finds mention in the 'Handbook on the working of

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	Ministry of Parliamentary affairs. 2. As per tradition, one of the senior-most members of the Lok Sabha is selected by the government , who is then administered oath by the President.
Functions	1. The Speaker Pro tem administers oath of office to other MPs. 2. The Speaker Pro tem presides over the election of full-time Speaker.

Speaker of Lok Sabha

Constitutional Provision	Article 93 of the Constitution provides that the Lok Sabha shall choose two members to be its Speaker and Deputy Speaker . The election of the Speaker is held on a date fixed by the President . All the Speakers in independent India have been elected unopposed.
Functions	<p>Two important constitutional functions</p> <ol style="list-style-type: none"> Certifying a Bill to be a Money Bill. Rajya Sabha has limited role over money bills. Deciding on disqualification under the Tenth Schedule for defection. <p>Other Functions</p> <ol style="list-style-type: none"> Presiding Over House Proceedings– The Speaker oversees the sessions of the Lok Sabha, ensuring discipline and decorum among members. The Speaker decides the agenda for parliamentary meetings and interprets procedural rules. Final Interpreter within the House- The Speaker is the final interpreter of the provisions of (a) the Constitution of India, (b) the Rules of Procedure and Conduct of Business of Lok Sabha, and (c) the parliamentary precedents, within the House. Constitution of Committees- The Committees of the House are constituted by the speaker and function under the speaker's overall direction. The Chairmen of all Parliamentary Committees are nominated by Speaker. Power of Referrals of the Bill- The Lok Sabha rules provide the Speaker with the powers of referral of Bills introduced to Standing Committees. Permits the adoption of Motion- Except for the no-confidence motion, all other motions which come before the House come only after the Speaker permits them. Guardian of Privileges of the House- The Speaker is the guardian of the rights and privileges of the House, its Committees and members. Suspension of members- The speaker can suspend members for grave disorder up to a maximum of five days. Administrative Authority- The Speaker is the head of the Lok Sabha Secretariat, and manages administrative affairs and security arrangements within the Parliament Estate. Inter-Parliamentary Relations- The Speaker serves as the ex-officio President of the Indian Parliamentary Group, facilitating inter-parliamentary relations.

Deputy Speaker

Constitutional Provisions	Article 93 of the Constitution provides for the office of Deputy Speaker . The election of Deputy Speaker is held on a date fixed by the Speaker .
Constitutional Conventions	The convention of offering the post of Deputy Speaker to the Opposition started in the year 1991 . Till the 16th Lok Sabha, this convention has been followed without a break . However, no Deputy Speaker was elected in the 17th Lok Sabha.
Functions	The Deputy Speaker is an important constitutional officer who steps in during the vacancy or absence of the Speaker .

	<p>He/She also presides over the joint sitting of both the Houses of Parliament, in case the Speaker is absent from such a sitting.</p> <p>Whenever the Deputy Speaker is appointed as a member of a parliamentary committee, he/she automatically becomes its chairman.</p>
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What are the challenges with the functioning of the Office of Speaker of Lok Sabha?

1. Issue of Partisanship in Deciding Disqualification Under the Tenth Schedule- The Office of the Speaker has been used to decide in the disqualifications in such a way so that it favours the ruling party and dispensation. **For ex- Sixteen MLAs in the Arunachal Pradesh Assembly were disqualified by the Speaker, Nabam Rebia**, in 2016 despite not officially leaving the party or defying its directives.

Also the period to decide disqualification under anti-defection law, has been prolonged to favor the ruling dispensation. **For ex-** In 2017, the **Manipur legislative assembly anti-defection case**, the court gave a reasonable period of four weeks but the defection complaint was pending for years.

2. Misuse of the Certification Power- The Office of the Speaker has the certification power in case of money bill. However, there have been allegations regarding the misuse of discretionary powers of speakers with political affiliations in deciding money bill. **For ex- Certification of Aadhar as Money Bill was opposed by many legal luminaries.**

3. By passing of Committees and Scrutiny- The referral of Bills to committees by the speaker have **declined from 71% during 2009-14 to 16% during 2019-24**. The by passing of parliamentary committees goes against the parliamentary principles of building consensus on important matters.

4. Suspension of MPs- The opposition parties have alleged that speaker often played a partisan role in deciding on the suspension cases against the MPs. **For ex- Large-scale suspensions of Opposition MPs during the winter session of 2023.**

5. Lack of due deliberation and discussion- The restriction of debates or discussions on bills of national interest by the speaker, have often led to poorly crafted legislation which lacked sufficient deliberation. **For ex- Passage of the 3 farm laws in 2020** without debate and discussion, led to nationwide protests and subsequent repeal.

6. Increased Disruptions and Stalling of Proceedings- A Speaker **perceived as biased can lead to frustration and disruptions from the opposition**. This ultimately hinders the functioning of Parliament.

What are the observations of the SC and various committees on ensuring robust functioning of the Office of Speaker?

<p>Issue of partisanship in the Decision on Disqualification</p>	<p>1. Kihoto Hollohan versus Zachilhu case, 1993- The Supreme Court held that the decision of the speaker in cases of disqualification is not final and can be questioned in any court. The decision is subject to judicial review on the grounds of malafide, perversity.</p> <p>2. Keisham Meghachandra Singh v. The Hon'ble Speaker Manipur Legislative Assembly & Ors. case (2020)- The Supreme Court recommended that Parliament should consider amending the Constitution to substitute the Speaker as the arbiter of disqualification disputes with an independent tribunal headed by a retired Supreme Court or High Court judge. The Court also held that disqualification petitions should be decided by Speakers within three months, except in exceptional circumstances.</p> <p>3. Nabam Rebia vs Deputy Speaker Case, 2016- SC held that a speaker will</p>
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	<p>be disabled from deciding disqualification petitions under the anti-defection law (10th schedule of the constitution) if a notice for their removal is pending.</p> <p>1. The 255th Report of the Law Commission of India (2015)- It reiterated the need for an independent mechanism to decide on disqualification, instead of the Speaker.</p> <p>2. The 2010 report of the Parliamentary Standing Committee on Personnel, Public Grievances, Law and Justice- The report also suggested that the role of the Speaker in deciding disqualification petitions should be replaced by an independent mechanism.</p>
<p>Political Neutrality on Part of Speaker in certification of Bills, debates and deliberations</p>	<p>Learning from the Global Best Practices</p> <p>1. United Kingdom- In the UK, the Speaker of the House of Commons is expected to be strictly non-partisan and resign from their political party upon election. The Speaker is also not allowed to vote except in the case of a tie.</p> <p>2. Germany- In Germany, the President of the Bundestag (lower house) is expected to be politically neutral and resign from their party. They also do not have a casting vote in the case of a tie.</p> <p>V.S. Page Committee- The committee suggested that if the Speaker had conducted himself or herself in an impartial and efficient manner during the tenure of his or her office, he or she should be allowed to continue in the next Parliament.</p>

What Should be the Way Forward?

- 1. Amendment of the Constitution**- India should consider amending the Constitution to explicitly require the Lok Sabha Speaker to resign from their political party upon election, similar to the global practices observed in the cases like UK, Germany, Canada and Australia.
- 2. Code of Conduct for Speaker**- Steps must be taken to develop a comprehensive code of conduct for the Speaker that lays down principles of impartiality, transparency and accountability. This code should be enforced by an independent body.
- 3. Greater scrutinisation of Bills**- The Speaker must refer important Bills to Standing committees for scrutiny. Also, the suspensions that affect the robust functioning of Parliament, should be carried out with restraint.
- 4. Greater Security of Tenure**- The Speaker must be provided with greater security of tenure. For amending the constitutional provision for their removal by only a high threshold (requirement of 2/3rd majority). This will insulate them from political pressures.
- 5. Training and Development Programmes**- The Speaker must be provided with regular training and development opportunities to enhance their knowledge, skills and ability to remain impartial, including on parliamentary procedures, leadership, conflict resolution.
- 6. Strengthening of Parliamentary Committees**- The parliamentary committees should be empowered to scrutinize the Speaker's decisions and actions, and recommend corrective measures if needed. This will improve accountability of the Office of the Speaker.

Conclusion

Pranab Mukherjee, famously remarked about the Office of Speaker- "The Speaker's role is not just about running the House; it's about being a bridge between the government and the opposition, and ensuring that the democratic process is upheld." The example of N. Sanjiva Reddy resigning from his party upon becoming

Speaker in 1967 sets a positive precedent of non-partisanship. We must continue to build a healthy parliamentary democracy by politically neutralising the office of the Speaker.

Read More- [The Hindu](#)

UPSC Syllabus- GS 2- Issues related to legislature

India-Bangladesh Relations- Explained Pointwise

The recent visit by **Bangladesh PM Sheikh Hasina** marked **the first state visit by a foreign leader during PM Modi's third term**. Prime Ministers Sheikh Hasina and Narendra Modi have been **relentless in advancing the bilateral relations between Delhi and Dhaka over the last decade** and **turning India and Bangladesh into valuable partners of each other**. The productive consequences of the two leaders' commitment to overhaul ties have been hailed as marking a **"golden chapter"** (**'sonali adhyay'**) in the history of India-Bangladesh bilateral relations.

Outcomes of the Recent India-Bangladesh Bilateral Meeting

1. Unveiling the **'vision for a shared future'** and turning the **"extraordinary relationship"** of the last decade into a **"transformational partnership"**.
2. Focus on the **unfinished agenda of connectivity** that includes the **easing of visa procedures, freer movement of goods, cross-border energy and electricity flows, and the building of digital bridges**.
3. Commencement of the long overdue negotiations on a **comprehensive economic partnership agreement (CEPA)** between India and Bangladesh.



India-Bangladesh Relations

The **close India-Bangladesh relations** was again illustrated when PM Narendra Modi congratulated Ms. Sheikh Hasina on her return to power in Bangladesh for a historic fourth straight term.

India-Bangladesh Relations

- » The foundation of India's relationship with Bangladesh was laid in the **1971 Bangladesh Liberation War**. India provided critical military support in its independence.
- » India-Bangladesh relations soured within a few years as military regimes took control after the assassination of Sheikh Mujibur Rahman in 1975. There was **anti-Indian sentiment**.
- » After the return of Parliamentary democracy in 1991 and Sheikh Hasina coming to power in 1996, there has been **deepening of India-Bangladesh relations**.

Areas of Cooperation

- » **Political Cooperation**- Indian PM's visit to take part in their **golden Jubilee celebrations of Bangladesh Independence, Gandhi Peace Prize 2020 to Sheikh Mujibur Rahman**.
- » **Land Boundary Agreement (2015)**- Swapping of the disputed enclaves.
- » **Economic cooperation**- India is the **second-biggest trade partner** of Bangladesh, bilateral trade between India-Bangladesh has reached **\$18 billion in 2021-2022**, **duty-free quota access** to Bangladesh under SAFTA & **joint feasibility study** on Comprehensive Economic Partnership Agreement (CEPA)
- » **Infrastructure Cooperation**-India as a '**major development partner**' of Bangladesh, **extended Lines of Credits worth over \$7 billion**, **Ahaura-Agartala rail link**, **Maitri Setu**
- » **Energy cooperation**-Bangladesh **importing 2,000 MWs of electricity** from India, **India-Bangladesh Friendship Pipeline** for high speed diesel supply.

Significance

- » **Geo-strategic**- Bangladesh provides India with **access to the Bay of Bengal** and an important route for **trade and connectivity** with Southeast Asia
- » **Geo-political**- Cooperation on issues such as **counter-terrorism and border security** and **India's bid for UNSC permanent membership**
- » **Economic**- Critical for India becoming a **\$5 trillion economy** and achievement of **goals of new FTP**.
- » **Cultural and civilisational**- Large Hindu Bengali population in Bangladesh and religious sites like **Ranir Bungalow Temple, Bhoj Vihara**

Challenges

- » **Sharing of Transboundary River Waters- Teesta river water dispute.**
- » **Deportation of Rohingyas**- India seeks to give **primacy to deportation from its mainland first** and then **later facilitate deportation** from Bangladesh
- » **Cross-Border terrorism, infiltration & Drug Smuggling & Trafficking**- Raised additional threats to **internal security**.
- » **Growing Chinese Influence in Bangladesh**
- » **Attacks on minorities across both the borders**

Way Forward

- » **Early resolution of Transboundary river water Dispute**
- » **Early conclusion of India-Bangladesh FTA**
- » **Establishment of Joint Task Forces, Smart Border Management.**

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What is the history of India-Bangladesh Relations?

India-Bangladesh relationship are civilisational, cultural, social and economic. The relationship is deep-rooted in history. However, the relationship also had its share of highs and lows.

<p>During Bangladesh Independence (Phase of High)</p>	<p>The foundation of India's relationship with Bangladesh was laid in the 1971 Bangladesh Liberation War. India provided critical military and material support to assist Bangladesh in its fight for independence from Pakistan. The very first Independent government of Bangladesh, led by Sheikh Mujibur Rahman, was formed and administered from Theatre Road in Kolkata.</p>
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During the Military rule in Bangladesh (Phase of low)	India-Bangladesh relations soured within a few years as military regimes took control after the assassination of Sheikh Mujibur Rahman in 1975. There was a rise in anti-India sentiment, during the military rules of General Ziaur Rahman (1975-1981) and General H.M. Ershad (1982-1991), over issues ranging from boundary disputes, insurgency and water-sharing .
After the return of Parliamentary Democracy in Bangladesh in 1991 (Phase of repair and towards high)	After the return of Parliamentary democracy in 1991 and Sheikh Hasina coming to power in 1996, India and Bangladesh scripted a new chapter of cooperation in bilateral ties with a treaty on the sharing of Ganga waters . Since then, India and Bangladesh have built cooperation in trade, energy, infrastructure, connectivity and defence.

What is the significance of India-Bangladesh Relations?

- 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 are the areas of Cooperation between India and Bangladesh?

- 1. Political Cooperation-** India and Bangladesh have maintained close political relationship among them, with frequent bilateral visits and close bonhomie between the heads of the government. **For Ex-**
 - a. Indian PM's visit to Bangladesh** to take part in their **golden Jubilee celebrations of Independence**.
 - b. India has awarded Gandhi Peace Price 2020** to Bangladesh's founding president **Sheikh Mujibur Rahman**.
 - c. Bangladesh's PM Sheikh Hasina visit to India** to take part in the **G-20 summit**.
- 2. 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.
- 3. Economic cooperation-** Bangladesh has emerged as India's largest trade partner in South Asia. India is the **second-biggest trade partner of Bangladesh**.
 - a. The bilateral trade between India-Bangladesh has reached \$18 billion in 2021-2022 from \$10.8 billion in 2020-21.**
 - b. India and Bangladesh have also concluded a joint feasibility study on a Comprehensive Economic Partnership Agreement (CEPA) in 2022** to reduce or eliminate custom duties on traded goods.
 - c. India has provided duty-free quota access to Bangladesh on all tariff lines, except tobacco and alcohol, under South Asian Free Trade Area (SAFTA) since 2011.**

4. **Infrastructure Cooperation-** India is a 'major development partner' of Bangladesh, as India is funding several infrastructure and connectivity projects in Bangladesh.
 - a. India has extended Lines of Credits worth over \$7 billion to Bangladesh since 2010.
 - b. **Ahaura-Agartala rail link** has been inaugurated that connects Bangladesh and the northeast through Tripura. The link has given India access to **Chattogram and Mongla ports** in Bangladesh for the movement of cargo. It is likely to boost small-scale industries and develop Assam and Tripura.
 - c. '**Maitri Setu**' bridge which is a 1.9 km long bridge connecting Sabroom in India with Ramgarh in Bangladesh has been inaugurated.
 - d. **Kolkata-Dhaka-Agartala Bus Service** launched in 2015 has reduced the distance between Kolkata and Agartala from **1,650 km** (through chicken's neck or Siliguri corridor) to just 500 km.
5. **Energy cooperation-** Bangladesh imports **nearly 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**.
6. **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).
7. **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.
8. **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 are the areas of Tension 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 Koshiyara 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.

Read More- [Emerging Challenges for India after the Bangladesh Elections](#)

What Should be the way forward for India-Bangladesh Relationship?

- 1. Early resolution of Transboundary river water Disputes-** The **early resolution of Teesta** is the better way to boost India-Bangladesh relations by the **formation of tripartite committee of India, Bangladesh and West Bengal**.
- 2. 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).
- 3. 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**.
- 4. 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.
- 5. Restoration of Global image of Bangladesh-** India must help in restoring the global image of Bangladesh which has been facing U.S. Sanctions on account of '**democratic backsliding**' and '**human rights violations**'. India must work closely with the law enforcement agencies of Bangladesh to reduce the ethnic attacks on Bangla speaking Hindus.

One of the prime interest is developing North-East India, better connectivity to South-East Asian Countries and exploring the Indo-Pacific region. To achieve that, deepening of India-Bangladesh relations is a significant step.

Read More- [The Indian Express](#)

UPSC Syllabus- India and its neighbourhood Relations

The Great Nicobar Island Development Project- Significance and Challenges- Explained Pointwise

The NITI Aayog's conceived '**The Great Nicobar Island Development Project**' is in news again as it is **facing protests and appeals to halt the project** on environmental grounds by **conservationists, naturalists, various political parties and civil society groups**.

This development project has been promoted as a '**mega-infrastructure project**' and a '**strategic masterstroke**' by the NITI Aayog. The project is of critical importance for defence, logistics, commerce and industries, and eco-tourism. Hence, these benefits and the risks associated with the project needs to be comprehensively evaluated.



Figure 2, Source- The Hindu

What is the Great Nicobar Island Development Project?

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

Corporation (ANIIDCO).

The project covers **16,610 hectares** and aims to leverage the island's strategic location near the Malacca Strait. The Great Nicobar Island Development project includes developing an

1. An International Container Transshipment Terminal (ICTT)
2. A greenfield international airport
3. Two greenfield cities
4. A coastal mass rapid transport system
5. A free trade zone

Geography of the Great Nicobar Island

The island of Great Nicobar is the southernmost tip of India and a part of the Andaman and Nicobar archipelago that **comprises 600-odd islands**. It is **hilly and covered with lush rainforests**. It receives around **3,500 mm of annual rainfall**.

The rainforests and beaches host numerous **endangered and endemic species** including the **giant leatherback turtle**, the **Nicobar megapode**, the **Great Nicobar crake**, the **Nicobar crab-eating macaque**, and the **Nicobar tree shrew**. It has an area of 910 sq km with mangroves and Pandan forests along its coast.

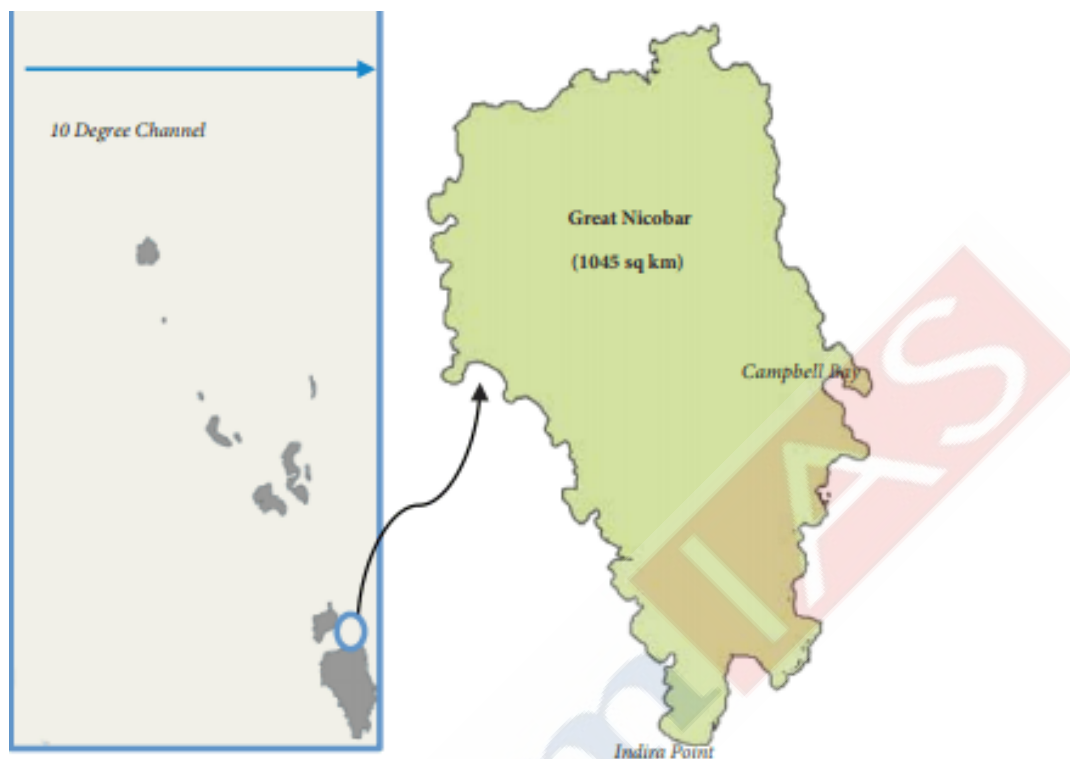


Figure 3. Source- Copyright infringement not intended

Read More- [Importance of Andaman and Nicobar Islands- Explained Pointwise](#)

What is the significance of Great Nicobar Island Development Project?

- 1. Geo-strategic benefit-** Great Nicobar Island is **located close to the Malacca Strait**, which is the main waterway connecting the Indian Ocean to the Pacific. The Great Nicobar Island Project aims to **take advantage of this strategic position to enhance India's role** in the regional and global maritime economy.
- 2. Geo-Security Concerns-** The **Bay of Bengal** and **Indian Ocean region** are vital for India's strategic and security interests, especially with the **Chinese naval expansion**. The project will strengthen India's maritime security and deterrence capabilities.
- 3. Upgradation of military infrastructure-** The Great Nicobar project also helps in the upgradation of military infrastructure by the establishment of airfields, jetties, and surveillance facilities.
- 4. Economic Boost-** The project includes an International Container Transshipment Terminal (ICTT), which can make Great Nicobar a significant player in cargo trans shipment. The **ICTT is expected to boost economic activities** in the region.
- 5. Creation of Job opportunities for locals-** The Nicobar plan involves the **creation of infrastructure** (ports, airports etc.). This will help in creation of job opportunities for the locals.
- 6. Tourism Development-** It helps in **creation of tourism prospects in the region**. This will aid the income generation in the region. The per capita income in Andaman & Nicobar Islands for the year 2015-16 was **Rs. 1,24,361**. This was **much lower than the per-capita income of other Union Territories** (Chandigarh, Delhi, and Puducherry.)

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

What are the associated concerns with the project?

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

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

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

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

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

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

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

What Should be the Way Forward?

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

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

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

3. Reassessment of economic feasibility of the project- The **project lies equidistant (1,300 km) from established transshipment hubs and bunkering ports** of **Singapore, Port Klang (Malaysia) and Hambantota (Sri**

Lanka). Hence the economic viability of yet another transshipment terminal in Great Nicobar Island needs to be reassessed, especially since India inaugurated its own transshipment terminal in Vizhinjam in Kerala.

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

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

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

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

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

Conclusion

India needs to achieve the Vision of “Happy and Prosperous Islanders on ecologically-protected Islands”. To achieve that, India needs to adopt development plans that are technically feasible, economically profitable and socially acceptable.

Read More- [The Indian Express](#)

UPSC Syllabus- GS 3 – Infrastructure

50 years after the 1975 emergency – Lessons and Way forward – Explained Pointwise

This year marks the beginning of the 50th year since the imposition of Emergency on June 25, 1975. The emergency imposed in the year 1975 is considered to be the darkest chapter in the democratic history of India. The period of emergency serves as a reminder of the need to protect the rights and freedoms of individuals.



Figure 4, Source- The Indian Express

What are the constitutional provisions behind the imposition of Emergency?

The emergency provisions are contained in **Part XVIII of the Constitution of India**, from **Article 352 to 360**. These provisions enable the Central government to meet any abnormal situation effectively.

The Constitution stipulates three types of emergencies-

1. National Emergency
2. Constitutional Emergency
3. Financial Emergency

The state of national emergency had been imposed thrice since Independence-

1. During the wars with China in 1962
2. During the war with Pakistan in 1971
3. Emergency imposed in 1975.

It was the imposition of National Emergency by Indira Gandhi in 1975, that is considered to be the most infamous in the annals of our democracy. 'Internal disturbances' was cited as a major reason by President Fakhruddin Ali Ahmed to impose the Emergency under Article 352 of the Constitution.

Important constitutional amendments enacted during Emergency

38th Amendment Act, 1975 made the President's declaration of Emergency non-judicial. The amendment barred judicial review of proclamations of emergency made by the President, whether to meet external, internal, or financial threats (under Article 360). The amendment codified and enlarged the state's power to remove fundamental rights from citizens during states of emergency

42nd Amendment Act, 1976 was the most significant amendment enacted during the Emergency imposed by Indira Gandhi. It attempted to reduce the power of the Supreme Court and High Courts to pronounce upon the constitutional validity of laws. It gave Parliament unrestrained power to amend any parts of the Constitution, without judicial review. After the Janata Party came to power in 1977, they brought the 43rd and 44th Amendments to partially restore the pre-Emergency position

What is the rationale behind imposition of emergency in India? What are the famous Supreme Court judgements regarding emergency in India?

The rationale behind the incorporation of emergency provisions in the Indian Constitution is to

- a. safeguard the sovereignty, unity, integrity and security of the country
- b. The democratic political system and the Constitution itself

Article 356 (constitutional emergency) was introduced to ensure safety against extreme emergencies and protect legislative processes.

Article 360 (Financial emergency) was added Dr B.R Ambedkar to cushion the country's drastically falling financial position and foreign currency reserves.

Supreme Court judgements on emergency

Minerva Mills Ltd. vs Union of India (1980)	The Supreme Court held that the power of judicial review cannot be suspended even during an emergency. The basic structure of the Constitution, including the power of judicial review, cannot be abrogated.
S.R. Bommai vs Union of India (1994)	The Supreme Court held that the imposition of President's Rule under Article 356 is subject to judicial review. The Court laid down guidelines and limitations on the use of Article 356.
Bhut Nath Mete vs State of West Bengal (1974)	The Court held that the suspension of fundamental rights under Article 359 does not mean that all legal remedies are barred. Writs can still be filed on grounds of non-compliance with statutory provisions.

These judgments highlight the Supreme Court's **evolving stance on balancing the need for strong central authority during emergencies with the protection of individual rights and the rule of law**. The Court has sought to limit the misuse of emergency powers while upholding their constitutional validity.

What reasons were given by the government for the imposition of emergency of 1975?

- 1. Economic crisis-** There was a prevailing situation of economic crisis like **high unemployment, sluggish industrial growth, rising prices of essential commodities**, and a general environment of discontent among the people. This was translating into major disenchantment with the government.
- 2. Student unrest in Gujarat and Bihar-** Agitations against rising prices and corruption was started by the students in **Gujarat in 1974**. The unrest and protest **subsequently spread to Bihar**. The defeat of the Congress party in Gujarat was an alarm for the government regarding its unpopularity.
- 3. JP movement-** The JP movement, led by Jayaprakash Narayan, **gained national appeal** and demanded the dismissal of the Congress government in Bihar. It was **supported by opposition parties like the Jana Sangh and Bhartiya Lok Dal**. This movement galvanised the masses against the regime which was becoming unpopular.
- 4. Railway strike-** The railway employees strike **led by George Fernandes in 1974**, paralyzed the nation. The strike demanded better service conditions and raised workers' rights issues.
- 5. Conflict with the judiciary-** There was a persistent conflict between the government and judiciary over **fundamental rights, the basic structure of the Constitution**, and **the appointment of the Chief Justice**. This languishing conflict between govt and judiciary led to a stalemate.
- 6. Lack of Internal Democracy-** **Concentration of power** in the hands of one leader, **lack of respect for democratic functioning**, a culture of sycophancy, corruption in the vital organs of the state also pushed the country towards emergency.
- 7. Allahabad High Court verdict-** The judgment of the **Allahabad High Court on June 12, 1975, nullified the election to the Lok Sabha of the then Prime Minister in 1971** on the grounds of abusing official machinery for electoral gains. This judgment served as the final straw and Emergency was proclaimed two weeks later.

What was the effect of the imposition of emergency of 1975?

The imposition of the Emergency by Indira Gandhi in 1975 had significant and far-reaching effects on India. Some of the effect are mentioned below-

- 1. Suspension of civil liberties-** The Emergency allowed the government to suspend fundamental rights enshrined in the Constitution, such as the **rights to freedom of speech, assembly, and movement**. This led to a brutal crackdown on political opposition and dissent.
- 2. Arrest of opposition leaders-** Prominent opposition leaders like **Jayaprakash Narayan, Morarji Desai, Atal Bihari Vajpayee, and L.K. Advani** were arrested and jailed under draconian laws like the **Maintenance of Internal Security Act (MISA)**. According to some estimates, over 100,000 people were arrested during the Emergency.
- 3. Censorship of the media-** The media was heavily censored, with the government clearing all news reports before publication. This led to a **complete breakdown of press freedom**. **For ex-** The Indian Express publishing a blank editorial in protest.
- 4. Constitutional amendments curtailing powers of judiciary-** The 38th and the 42nd Amendment were passed. These **reduced the power of the judiciary to review constitutional validity of laws**. It also expanded the powers of the central government at the expense of states.

5. Forced sterilization program- The government launched a **coercive family planning program that involved forced mass sterilizations**, leading to widespread public resentment.

6. Economic impact- The **strikes, protests, and political instability** during the Emergency severely damaged the Indian economy. This led to high inflation, slow growth, and a decline in living standards.

7. Political backlash- The excesses of the Emergency led to a **massive public backlash, resulting in the Congress party's defeat in the 1977 elections**. This marked the first time the ruling party had lost power since independence.

What are the judgements and the reports that have criticized emergency in India?

Several key judgments and commissions have criticized the imposition of Emergency in India by Indira Gandhi in 1975.

ADM Jabalpur v. Shivkant Shukla (1976)	This controversial Supreme Court judgment during the Emergency, by a 4:1 majority, upheld the government's position that the right to life and personal liberty could be suspended during an Emergency. The sole dissenting judge was Justice H.R. Khanna , who was later superseded for the position of Chief Justice. The judgment was widely criticized for reducing the importance of fundamental rights.
Puttaswamy v. Union of India (2017)	In this landmark judgment, a 9-judge bench of the Supreme Court unanimously overruled the ADM Jabalpur judgment . The court ruled that the right to life and personal liberty is an inalienable human right that existed even before the Constitution, and cannot be suspended even during an Emergency

Shah Commission Report (1978)- The Shah Commission, headed by Justice J.C. Shah, was set up after the Emergency to inquire into "excesses" committed during that period. The commission's report was **highly critical of the government's actions**, including the **mass arrest of opposition leaders, censorship of the media**, and the **forced sterilization program**.

What lessons can be drawn from the emergency which will ensure thriving democracy in India?

1. Avoiding despotism- Our Constitution mandates democratic governance based on people's participation, wider consultations and consensus, conformity with the spirit and provisions of the Constitution and compliance with the laws made by the legislature. **Despotism has no place in democracy**. An elected ruler **must rule within the constitutional framework**, avoiding personal interest and aggrandisement.

2. Avoid conflict with Judiciary- The executive must not conflict with judiciary. The judgements must be interpreted by the executive from a larger lens. Judgement like the **Golaknath, Kesavananda Bharati and Allahabad High Court** judgment were viewed from a narrow prismatic lens by the executive.

3. Protecting the fundamental rights of the people- The **govt must value and protect the fundamental right to freedom of speech, right to life**. Any infringement on fundamental rights guaranteed by the Constitution, is fiercely contested by the people of India through their ballot verdict.

4. Greater Responsibility of Media and civil society- It was famously remarked by L.K.Advani about the media in the period of emergency- **You were asked only to bend, yet you crawled**. Hence the **civil society and media must play a more responsible role** to avoid another emergency in future.

Read More- [The Indian Express](#)

UPSC Syllabus- GS 1- Post Independence History

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The Challenge of Cross-border Terrorism in India- Explained Pointwise

The recent Reasi terrorist attack on the day the Prime Minister, Narendra Modi, took **his oath of office for a third term points to the serious challenge** of cross border terrorism in India. The attack in Reasi was similar to the attack on the **Consulate General of India (CGI), Herat, Afghanistan on May 23, 2014**, three days prior to first swearing-in of the Prime Minister. All these cross-border terrorist attacks on such important days has been to embarrass and enrage India on days of great political significance.

What is cross-border Terrorism? What are the sources of cross-border terrorism in India?

Cross Border Terrorism- Cross-Border Terrorism is a form of terrorism in which **soil of one country is used to create terror in bordering countries**. It is a form of **grey zone conflict** and is an **undeclared war**. It is considered to be highest form of strategy to bleed a nation for prolonged period by small efforts.

During the last several years thousands of civilians have lost their lives in acts of cross border terrorism. Apart from thousands of defence, paramilitary and police personnel who have sacrificed their lives in the line of duty.

Sources of Cross Border Terrorism



Figure 5.Source- India Map

Indo-Pakistan Border	The Indo-Pakistan Border (3,323 Km) runs along the states of Gujarat, Rajasthan, Punjab and J&K. Cross-Border Terrorism from Pakistan has been exacerbated due to the non-recognition of boundaries by its terrorist groups and their success in acquiring legitimacy due to religious or ethnic identity. Inadequate Cooperation from Pakistan has made the management of border further difficult for India.
Indo-China Border	Indo-China Border (3,488 Km) runs through the Indian states of Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh. This border has also been a source of cross border terrorist activities in India. This border remains a cause of constant vigil for Indian forces.
Indo-Bangladesh Border	The Indo-Bangladesh Border (4,096 Km) passes through West Bengal, Assam, Meghalaya, Tripura and Mizoram. Illegal Migration across this border poses serious security threats and acts as a fertile ground for organisations like the Inter-Services Intelligence of Pakistan to penetrate and expand their activities. Poor law and order situation at the border, has led to smuggling of arms and drugs. The Supply of arms helps in sustaining any conflict.
Indo-Nepal Border	India-Nepal Border (1,751 Km) is an open border to facilitate the free movement of people across the border. Anti-India organizations use this border to plant their people in the territory of India. Smuggling of gold, small arms, drugs and fake currency helps terrorists in executing an attack.
Indo-Myanmar Border	The Indo-Myanmar Border (1,643) passes through the northeast states of Arunachal Pradesh, Nagaland, Manipur and Mizoram. The insurgents and terrorist groups like the National Socialist Council of Nagaland (NSCN) and United Liberation Front of Asom (ULFA) operate from Myanmar, which threaten the security of India as well as Myanmar.
India-Bhutan	The Indo-Bhutan border (699 km) passes through states of Assam, Arunachal Pradesh, West Bengal and Sikkim. Illicit establishment of camps by militant outfits in the dense jungles of south-east Bhutan helps insurgents from India in executing anti-India activities.
Maritime Borders	India's long coastline remains comparatively unguarded with minimal presence of coast guards. The 26/11 cross-border terrorist attack took place through maritime borders.

What are the reasons behind cross-border terrorism in India?

- 1. Pakistan sponsored terrorist groups-** Cross-border terrorism from Pakistan has been exacerbated by Pakistani terrorist groups like Lashkar-e-Taiba and Jaish-e-Mohammad. These terrorist organisations view the border as illegitimate and continue to infiltrate into India to carry out attacks.
- 2. Lack of adequate cooperation from Pakistan-** Pakistan has provided material support to secessionist militants in India's border states like Jammu & Kashmir and the Northeast. There has been inadequate cooperation from Pakistan in stopping cross-Border terrorism. For ex- Failure of India-Pakistan's joint anti-terrorism mechanism and dialogue.
- 3. Porous and difficult-to-secure borders-** India's borders with most of its neighbors like Bangladesh, Nepal are porous and difficult to fully secure due to complex geographical features like mountains, deserts, and riverine areas. This makes it easier for terrorists to infiltrate into India.

4. Over Ground Workers- The local population is recruited as over-ground workers by the terrorist outfits in border areas. These over-ground workers support and facilitate the cross-border movement of terrorists by **providing them transportation, shelter, and other assistance.**

5. Corruption among officials- Corrupt officials allow **illegal cross-border movement in exchange for bribes.** This provides avenues for criminal elements and terrorists to enter India.

What are the effects of cross-border terrorism in India?

Cross-border terrorism has had severe consequences for India. These are mentioned below-

1. Loss of civilian and defence personnel lives- There has been loss of lives of thousands of civilians in acts of cross-border terrorism over the years. Thousands of **defense, paramilitary and police personnel** have **sacrificed their lives** in the line of duty fighting cross-border terrorism.

2. Disruption of peace and security- Cross-border terrorism has disrupted peace and security along India's borders, particularly with Pakistan. It has led to a deterioration of bilateral relations between India and Pakistan.

3. Illegal infiltration and smuggling- Cross-border terrorism has **facilitated illegal infiltration and smuggling of narcotics, arms and weapons** across India's borders, especially with Pakistan and Bangladesh.

4. Economic costs- The resources and efforts diverted to counter cross-border terrorism have come at an economic cost to India in terms of **defense expenditure** and **lost economic opportunities.**

5. Psychological impact- The constant threat of cross-border terrorism has **created an atmosphere of fear and insecurity among the civilian population** living along the borders.

What are the steps taken by India to Counter Cross Border terrorism in India?

National Investigation Agency (NIA) and Multi Agency Centre (MAC)	Government of India has created NIA in 2008 after Mumbai attacks which acts as a federal agency to combat terror. Multi Agency Centre (MAC) revamped after the 26/11 attacks. This acts as a multi-agency intelligence coordination mechanism for counter terrorism.
Combating Financing of Terrorism Cell (CFT- Cell)	Combating Financing of Terrorism Cell (CFT- Cell) has been created to deal with the policy matters on combating terrorist financing and Fake Indian Currency.
Comprehensive Integrated Border Management System (CIBMS)	This system has replaced manual surveillance/patrolling of international borders by electronic surveillance to enhance detection and interception capabilities.
Comprehensive Convention on International Terrorism (CCIT)	India has been pushing for the adoption of this convention in the UN. It provides a legal framework to enhance the prosecution and extradition of terrorists.

What should be the way Forward?

1. Reassessment and speeding up of border management policies- There is a need to reassess policies related to management of India's international borders such as **intelligence apparatus, internal security** and **border management.** The smart fencing of all Indian Borders must be expedited.

2. Kinetic Strikes- The surgical strikes like the **Uri Surgical Strike** and the **airstrike like the Balakot airstrikes** must be carried out to deter the terrorists. The military should also look at alternative means to strike at the terror camps across the LoC (Line of Control) and LAC (Line of Actual Control) through mechanisms like **Precision Engagement Capability.**

3. Specialised force and training- India should move in the direction of specialisation of military to fight cross-border terrorism. A judicious mix of properly trained manpower and affordable and tested technology is likely to yield better results.

4. Beefing up Cyber defence Mechanism- A holistic cyber defense mechanism must be developed to effectively counter cyber-linked terrorism, including conducting cyber operations and implementing strong countermeasures against cyber attacks from foreign soil.

5. Speeding up judicial process- India's national criminal justice system must be enhanced and legal protocols must be streamlined to enable speedy trials of cross border terrorism cases.

6. Counter-radicalization programmes- The counter-radicalization programs focussing on promoting non-violence and tolerance must be implemented, especially in educational institutions. This will reduce youth's exposure to cross border terrorism and radical ideology. This will reduce the number of over-ground workers in India.

Read More- [The Hindu](#)

UPSC Syllabus- GS 3 – Internal Security

Urban Flooding in India-Causes, Impacts and Remedies – Explained, pointwise

After enduring extreme temperatures nearing 50 degrees Celsius, Delhi residents are now dealing with unprecedented rainfall, causing severe waterlogging and chaos across the capital. Following one of its hottest periods on record, Delhi received a staggering 228.1 mm of rain in just 24 hours. This amount surpasses Delhi's average rainfall for the entire month of June, transforming the recent relief from heat into widespread disruption.

Over the past few years, India has seen an increase in the frequency of urban flooding in Indian cities. For instance, Hyderabad in 2000 and 2020, Ahmedabad in 2001 and 2020, Delhi in 2002, 2003, 2009 and 2010, Chennai in 2004 and 2015, Mumbai in 2005, Surat in 2006, Kolkata in 2007, and Srinagar in 2014 are a few of the most prominent ones.

Urban Flooding has become a persistent challenge, aggravated by rapid urbanization, inadequate infrastructure, and changing climatic patterns. During the monsoon season, cities across India often face flooding of streets, homes, and public areas because drainage systems are overwhelmed and urban surfaces do not absorb water. This problem disrupts daily life and poses risks to public health, infrastructure, and economic activities.

Thus, understanding the causes and consequences of urban flooding is important for implementing effective mitigation strategies and ensuring sustainable urban development in the face of increasing urban populations and climate uncertainties.

What are the causes behind the urban flooding phenomenon?

1) **Unplanned Rapid Urbanization**-Unplanned urban growth has destroyed natural drainage systems, leading to encroachment on floodplains and wetlands, less permeable surfaces due to widespread concrete construction, and changes in natural watershed boundaries..

2) **Lack of Effective Urban Governance**-Despite the 74th Constitutional Amendment Act, key areas such as urban planning, land use, and economic development have not fully transferred to city governments as

required. The structure of Urban Local Bodies (ULBs) lacks clarity that leads to **uneven distribution of power** between elected representatives and executive wings. This leads to **poor urban governance** and **mismangement** of waterlogging issues.

3) **Inadequate and Outdated Drainage Infrastructure:** Many Indian cities are still reliant on colonial-era drainage systems designed for rainfall intensities of **20-25mm per hour**, which are inadequate for current precipitation patterns. This results in **insufficient capacity** to handle increased water volume and **frequent overflow** during heavy rainfall,

4) **Climate Change and Extreme Weather Events-**The **Intergovernmental Panel on Climate Change (IPCC) reports** indicate an increase in the **frequency and intensity** of extreme rainfall events in India. This leads to a higher volume of water than **drainage systems** can handle and **increased runoff** due to the soil's inability to absorb water quickly.

5) **Loss of Water Bodies and Green Spaces:** A study by the **National Institute of Urban Affairs** revealed that major Indian cities have lost **70-80%** of their water bodies over the last 40 years. This has led to reduced **natural water storage capacity**, increased surface runoff, and disruption of the **natural water cycle**.

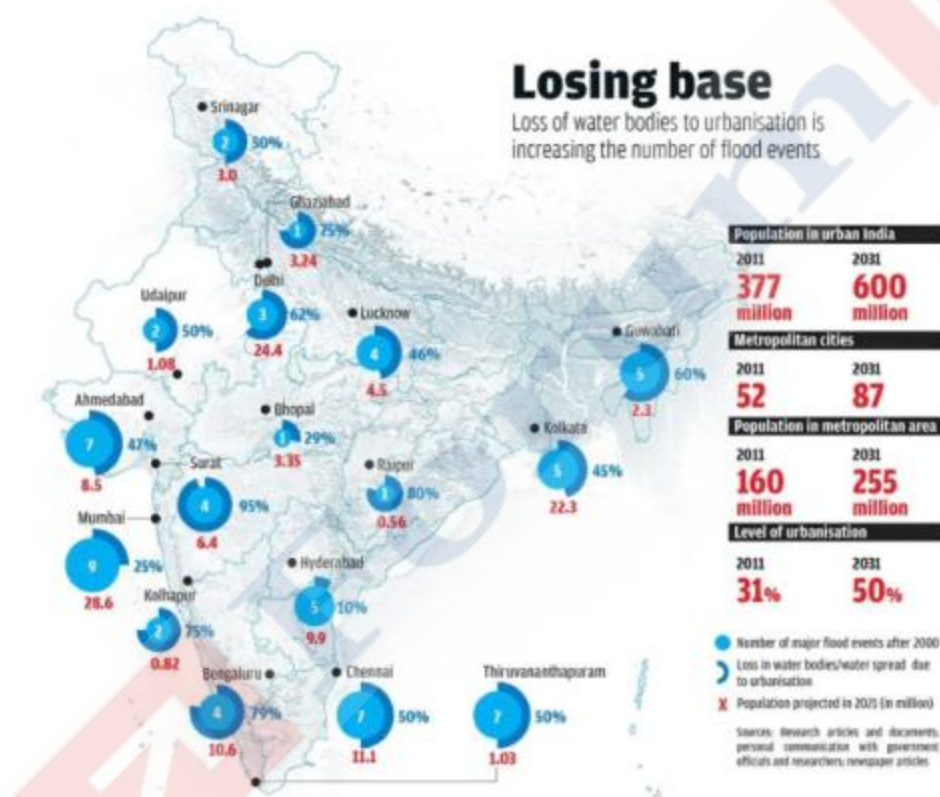


Figure 6. Source-Down to Earth

additional **low-lying areas** that are vulnerable to waterlogging.

8) **Lack of Integrated Urban Water Management-**There's a lack of coordination between various departments handling **water supply, sewage, and stormwater drainage**. This results in **fragmented approach** to water management. **For ex-** the administration is fragmented among at least 11 different agencies responsible for **roads and drains in Delhi**.

Number of Urban Flood Events in major cities since 2000 and the loss (in %) of water bodies due to urbanization

6) **Solid Waste Mismanagement-** **Improper** solid waste management is **choking drainage** systems. This causes clogged drains and **reduced water flow capacity** leading to waterlogging of cities.

7) **Groundwater Depletion and Land Subsidence:** **Excessive** extraction of groundwater has caused land subsidence in numerous urban areas. As groundwater is depleted, the land sinks, creating

9) **Siltation of Rivers and Water Bodies**-The **National Institute of Hydrology** reports significant siltation in urban water bodies and rivers. This leads to reduced **water holding capacity** of lakes and rivers and impaired **natural drainage systems**.

9) **High Population Density**-Rapid urbanization and population growth lead to more paved surfaces like **pavements, roads, and buildings**. This reduces **natural water absorption** and **increases surface runoff**, worsening waterlogging during heavy rains because water can't soak into impermeable surfaces.

What is the impact of urban flooding?

1) **Loss of Lives and Injuries**-.People can become trapped or swept away in submerged areas, resulting in **fatalities and injuries**.

2) **Damage to Infrastructure**: It can lead to widespread damage to buildings, roads, bridges, and other infrastructure. Homes, businesses, and **public facilities** may be flooded or destroyed, causing **substantial financial losses** for individuals, communities, and the government

3) **Displacement of Vulnerable Population**:Poor individuals may be compelled to vacate their **house and seek temporary shelter**, encountering difficulties in finding appropriate accommodation and enduring the loss of **personal belongings**.

4) **Disruption of Vital Services**:It can cause disruptions to essential services like **electricity, water supply, and communication networks**. This can aggravate hardships for affected communities and impede **rescue and relief efforts**.

5) **Waterborne Diseases**: It can increase the risk of waterborne diseases such as **cholera, typhoid, and diarrhoea**.

6) **Economic Consequences**:Businesses may experience **financial losses** from property damage and operational interruptions. Furthermore, the government bears expenses for **rescue and relief operations, infrastructure repairs**, and rehabilitation.

8) **Mental and Psychological Stress**-The experience of **trauma, anxiety, stress, and losing personal belongings** can impact the mental health of those affected.

What steps have been taken by Indian government and various state government to address the issue of urban flooding?

1) National Level Initiatives:

A) **National Urban Flooding Programme**-It aims to establish a **holistic approach** to urban flood management, encompassing guidelines for **flood risk assessment** and strategies for mitigation.

B) **Smart Cities Mission**-It **integrates urban flood management** as a pivotal component and advocates for the adoption of technology in real-time flood monitoring and **early warning systems**.

C) **Atal Mission for Rejuvenation and Urban Transformation (AMRUT)**-It focusses on enhancing urban infrastructure, especially stormwater drainage systems, and allocates funds for **upgrading and expanding drainage networks** in selected cities.

D) **National Disaster Management Authority (NDMA)**- It has issued **comprehensive guidelines** on **urban flooding** that provide a framework for flood risk assessment and management.

2) State and City-level Initiatives:

A) **Mumbai**-The implementation of the **BRIMSTOWAD (Brihanmumbai Storm Water Disposal System)** project includes upgrading existing pumping stations and installing new ones, as well as conducting **desilting** of major nullahs (drains) before the monsoon season.

B) **Chennai**-C-FLOWS, an acronym for **Chennai FLOod Warning System**, is a flood warning system customised for use in Chennai. The six-module ensemble can predict flooding due to heavy rainfall, sea-level rise and increase in water levels of the three rivers — **Cooum, Adyar and Kosasthalaiyar** — that traverse the city.

C) **Kolkata**-The **Kolkata Environmental Improvement Project (KEIP)** involves upgrading sewerage and drainage systems, installing new pumping stations, and dredging and **renovating canals**.

D) **Bengaluru** :Efforts include **rejuvenating lakes and water bodies**, implementing **rain gardens and bioswales in specific areas**, and undertaking initiatives to remove encroachments on stormwater drains.

E) **Ahmedabad**:Development of the **Sabarmati Riverfront**, which includes flood management measures.

What should be the wayforward?

1) **Capacity Development of ULBs**-There is a need to encourage staff to acquire **new skills** by offering suitable incentives. State governments and ULBs should prioritize rebuilding the foundational structure of **local government institutions, ensuring adequate staffing** at the ULB level and establishing training facilities.

2) **Water-Sensitive Urban Design and Planning**-Water-sensitive urban design and planning techniques are most important. These methods consider **land features, surface types** (whether they absorb water or not), natural water flow, and have minimal environmental impact. **City master plans** should include mandatory assessments of vulnerabilities and risks.

3) **Adopting Scientific Management Measures**- Initiatives should begin with mapping areas **vulnerable to waterlogging**. Hydraulic and hydrological models should analyze **flood patterns**, with results incorporated into **urban master plans**.

4) **Decentralized Stormwater Management**: Promoting decentralized stormwater management techniques such as **rainwater harvesting, bioswales, and retention ponds** can mitigate waterlogging at the local level.

5) **Smart Drainage Systems**: Utilizing advanced technology like **sensor-based drainage** systems that can detect water levels and regulate flow in real-time can improve the efficiency of urban drainage networks. **For ex-airborne laser terrain mapping (ALTM)** is an active remote sensing technology that employs light detection and ranging to measure topography at a high spatial resolution over large areas. It can serve as a crucial tool in **urban planning and developing flood riskmaps**.

6) **Synergistic Approach**-There is a need for improved coordination between various institutions especially between **water resources and disaster management authorities** for integrated and coordinated approach.

7) **Engaging Grassroots Organizations** -Engagement with grassroots organisations is necessary to promote awareness on holistic flood risk management. Participatory approach for early action coordination among stakeholders can help mitigate waterlogging issue.

For ex-Environmental Foundation of India (EFI), Chennai-It has restored over 39 lakes in Chennai, significantly reducing waterlogging in surrounding areas.

8) **Revival of Local Water Bodies**-There is a need to prioritize the protection and restoration of traditional local water bodies in urban areas. These water bodies would be integrated into **urban blue-green infrastructure** to enhance **water levels and quality**

For ex-Biome Environmental Trust, Bengaluru-They have led in **decentralized wastewater** treatment and

rainwater harvesting. Their “**A Million Recharge Wells**” campaign has raised groundwater levels and lessened flooding.

9) **Green Infrastructure:** Implementing green roofs, rain gardens, bioswales, permeable pavements, and urban green spaces can absorb rainwater and minimize surface runoff, thereby reducing strain on drainage systems.

10) **Nature-Based Solutions:** Implementing nature-based solutions such as restoration of natural wetlands, creation of urban forests, and revitalization of water bodies can enhance natural water absorption and reduce waterlogging.

Read more-Bengaluru Water Crisis

UPSC Syllabus:- GS III, Disaster and disaster management.