

Forum IAS

7 PM COMPILATION

October, 2023

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**
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Caste Census Significance and Challenges- Explained Pointwise

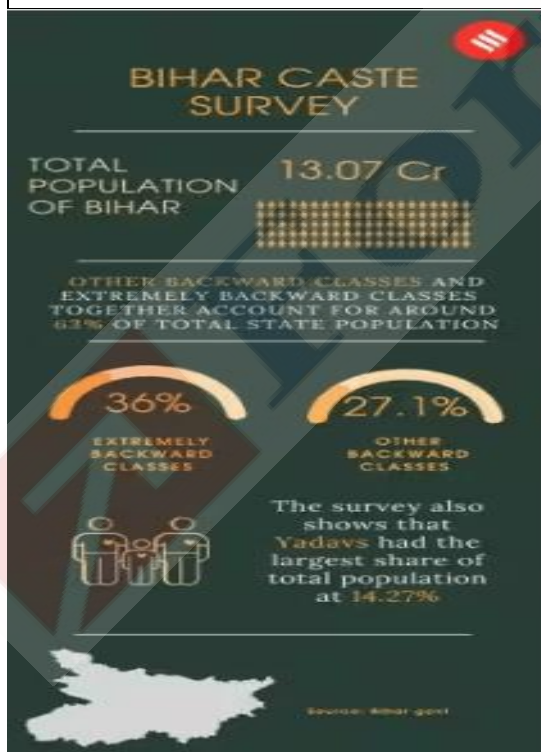
Caste census is again back in focus in the political landscape of the country as the Bihar government released the results of its recently concluded **Caste Survey** in the state. Caste survey of Bihar was an attempt at enumerating the strength and socio-economic conditions of different caste groups of the state. The Caste survey of Bihar is an attempt to pressurise the central government for conducting a **socio-economic caste census for 2021** which has been delayed due to corona.

Major results of Caste Survey of Bihar

The Caste Survey result reveals that Other Backward Classes (OBCs) and Extremely Backward Classes (EBCs) constitute more than 63% of the population of Bihar.

EBCs	4,70,80,514 Individuals (36.01% of Bihar population)
OBCs	3,54,63,936 Individuals (27.12% of Bihar Population)
SCs	2,56,89,820 Individuals (19.65% of Bihar Population)
STs	21,99,361 Individuals (1.68% of Bihar Population)
Unreserved	2,02,91,679 individuals (15.52% of Bihar Population)

Bihar's population, according to the survey, is **13,07,25,310, compared to the 10.41 crore** recorded in the 2011 census. Hindus comprise 81.99% of the population, and Muslims 17.72%. The populations of Buddhists, Christians, Sikhs, Jains, and other religious denominations are minuscule.



Source-The Indian Express

What is Caste Census and Caste Survey?

Census- Census is the total process of collecting, compiling, analysing and disseminating demographic, economic and social data of all persons in a country at a specific period of time. Census in India is conducted at regular intervals of 10 years.

Every Census in independent India from **1951 to 2011** has published data on Scheduled Castes and Scheduled Tribes, but not on other castes. Before that, every Census until 1931 had data on caste. Hence there has been demands for Socio-economic caste census to be conducted for 2021.

Caste Census- Caste census or more precisely Socio Economic caste census was conducted for the first time in Independent India in 2011. However the **findings were never made public**. The last published data for all castes was done in the 1931 census.

Caste Survey- Since only the Union govt has the power to conduct census, several state governments like **Bihar and Odisha have been conducting socio economic caste surveys** to ascertain the social and economic status of different castes for better policy making. The latest released Bihar caste survey is latest example of it.

Difference between Census, Caste Census(Socio Economic Caste Census) and Caste Survey

Parameters	Census	Caste Census(SECC)	Caste Survey
Legal Backing	Census is backed by the census Act 1948	Caste Census is not backed by any particular specific statute . Central govt by notification may provide for collection of Caste data	No Statutory backing. Caste surveys are used by the state governments since they do not powers to conduct census
Caste Data	Socio economic data of only SCs and STs were collected and released	Socio Economic data of OBCs were collected for the first time in 2011 census after independence. However the data was not released.	State Governments conducts caste surveys to ascertain the socio economic data of castes.
Confidentiality	All census data are kept confidential	All the personal information given in the SECC is open for use by Government departments to grant and/or restrict benefits to households.	State governments use the Caste survey data for informed policy making of state policies.

Read More- [Forum IAS](#)

What are the advantages of Caste Census?

Beneficial in Policy Making- Caste census will generate exhaustive data which will allow policymakers to develop **better policies and implementation strategies** for upliftment of

marginalised classes. Caste census will lay the foundation for data-driven affirmative policy formulation in a society ridden with exclusion, discrimination and marginalization based on group identities.

Rationalisation of reservation- The current policies are based on the last caste census which was conducted in 1931. New caste census can help the government in **identifying the most benefited section and reduce their share** in the overall reservation to provide an opportunity to other castes.

Better targeting of Government welfare schemes- The government welfare schemes can be **better targeted towards the most marginalised sections** of the community with the help of data gathered from the socio economic caste census. **For example-** Under the National Food Security Act, 83.92% of the population of Bihar is entitled to subsidized food grain. The Bihar survey reported that the population of the state has increased from 103.8 million in 2011 to 130.7 million in 2023. Thus by current population estimates, 109.7 million persons are eligible for the subsidy. However the current beneficiary count is just 87.1 million. That is, in Bihar alone, 22.6 million persons have been excluded from this benefit at a time when food inflation is high.

Caste has an Important Position in Indian Society- While census data has been captured for Scheduled Castes, Scheduled Tribes, religions and linguistic profiles, there has been **no profiling of all castes in India since 1931**. Caste has an important position in the Indian society and the data on caste can be helpful in ascertaining the socio-economic positions of different castes in India.

Addressing the prevalent Inequalities- Unequal distribution of wealth, resources and education has meant an acute shortage of purchasing power among the majority of Indians. The census will help to address these issues in a democratic, scientific and objective manner. This will lead to **social justice** in the country.

Fulfilment of Constitutional Mandate- Our Constitution favours conducting a caste census. **Article 340** mandates the appointment of a commission to investigate the conditions of socially and educationally backward classes and make recommendations as to the steps that should be taken by governments.

Helpful in fulfilling the objectives of various commissions- **Sachar committee** which was formed to examine the socio-economic and educational status of the Muslim community in India, mentioned that the availability of data on religion was useful in highlighting the relative deprivation of minorities. So, similar data on caste is also desirable to identify vulnerable sections within castes. This data will be useful for **Justice Rohini Commission** which has been formed for the sub-categorisation of OBCs.

Addressing Intersectionality- Caste intersects with other factors such as gender, religion, and region, leading to **compounded disadvantages**. The census can reveal these intersections which will lead to more nuanced policy approaches that target multiple dimensions of marginalisation.

Break the myths associated with castes- The caste census will reveal the actual data on castes and remove ambiguities associated with the caste. For instance, In Karnataka, there were claims that among the castes, the **Lingayats** are the most numerous. So the census can reveal the true information on that.

What are the disadvantages of Caste Census?

Caste based political mobilisation- The data can be used by the political parties for their narrow political gains. This will encourage **caste based mobilisations** in the country. As India seek to eliminate and weaken the notion of caste, a caste census would only strengthen it. There will be from every caste group for share in the power at the cost of administrative efficiency.

Hardening of caste identities may hamper growth of national integration- There have been concerns that counting caste may help **solidify or harden identities**. Due to these repercussions, nearly a decade after the SECC, a sizable amount of its data remains unreleased or released only in parts.

Strengthen demands for further reservations- Caste census may increase demand for larger or separate quotas. For instance, **Patels, Gujjars, Jats and other castes are demanding reservations**. The caste census might induce more such demands in future. The census would put pressure on the SC to lift the 50% ceiling.

Collection of caste data is not an easy task- Enumerating the caste numbers in India is a complex task as the **same caste is spelt in different ways in different states**. Also one caste maybe extremely backward in one state and can be backward in the other state.

Potential Stigmatization- Disclosure of caste identities could lead to individuals being **stigmatized or discriminated** against based on preconceived notions associated with certain castes. This can deter honest responses and undermine the survey's accuracy.

What should be the way forward ?

Need for sub categorisation of Backward classes- Instead of going behind the caste based census, the government can **subclassify the Backward Classes** like in Tamil Nadu, Andhra Pradesh, West Bengal etc. This will provide the benefit to intended beneficiaries. Since the government has already appointed Justice G Rohini Panel on Sub-categorisation of OBCs. The Panel has to fast pace the sub-classification process.

Use technologies to assess the caste date on SECC- The government can use technologies like **Artificial Intelligence and machine learning** to assess the SECC data and condense them into meaningful categories.

A Preliminary Census- Independent of census, a preliminary **socio-anthropological study can be done at the State and district levels** to establish all sects and sub-castes present in the population.

A caste census may not sit well with the goal of a casteless society, but it may serve as a means of addressing inequities in society. However the census must aim at gradual elimination of castes by uplifting the socio-economically marginalised sections of the society.

Read More- [The Indian Express](#)

Nobel Prize for Medicine 2023-Explained Poitwise

The Nobel Prize for Medicine 2023 has been awarded to **Katalin Karikó and Drew Weissman** for developing the **mRNA vaccine technology**. This technology became the foundation for history's fastest vaccine development programme during the COVID-19 pandemic.



Source- Nobel Prize

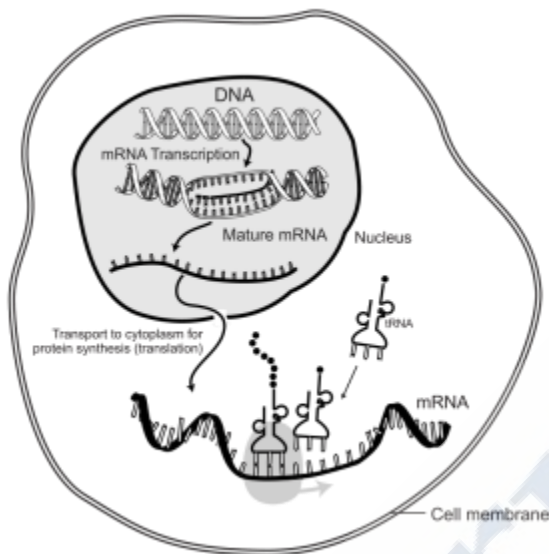
What is the History of vaccine development?

Early Stage Vaccines(Whole Virus Vaccines)	Whole Virus Vaccines based were based on killed or weakened viruses . Ex- Polio, measles and yellow are some examples of Whole Virus Vaccines.
Later Stage Vaccines(Protein Vaccines and Vector Based Vaccines)	Protein vaccines were based on individual viral components rather than whole viruses. Examples- hepatitis B virus and human papillomavirus . Vector Based Vaccines use a harmless carrier virus called "vector" to carry the viral genetic code. This method is used in vaccines against the Ebola virus .
Producing whole virus, protein and vector-based vaccines required large scale cell culture. This resource intensive process limited the possibilities for rapid vaccine production in response to outbreaks and pandemics.	
Modern Vaccines(mRNA Vaccines)	m-RNA technology has been used to produce modern vaccines in the fight against COVID-19. Nobel Prize has been awarded for making possible to use m-RNA technology to produce vaccines.

What is the discovery for which they have been awarded Nobel Prize for Medicine 2023?

Discovery- Their discovery is concerned about the **nucleoside base modifications that enabled the development of effective mRNA vaccines** against COVID-19.

What is mRNA- Messenger RNA (mRNA) is a type of **single stranded RNA molecule** that carries the genetic information from DNA to the ribosome. This information from mRNA is used to make proteins. mRNA serves as the intermediate between the genetic information stored in DNA and the functional proteins produced in cells. The mRNA molecule is synthesized from a DNA template in a process called **transcription**.



Source- Wikipedia

Read More- [Forum IAS](#)

Evolution of mRNA technology

In 1980s mRNA was produced in the lab for the first time. This method was called **invitro transcription**. It was hoped that using these invitro transcribed mRNAs could be used to produce vaccines and for other therapeutic purposes.

However **there were challenges** associated with these invitro transcribed mRNA-

1. The biggest challenge was that these In vitro transcribed mRNA gave rise to **inflammatory reactions**.
2. These In vitro transcribed mRNA were also considered **unstable**. Also it was **challenging to deliver** which required the development of sophisticated carrier lipid systems to encapsulate the mRNA.

These challenges reduced the enthusiasm for developing the mRNA technology for clinical purposes and vaccines.

However, these challenges with invitro transcribed mRNAs were solved by the Nobel Prize winners of this year.

They noticed that cells **recognize in vitro transcribed mRNA as a foreign substance** which leads to their activation and the release of inflammatory signalling molecules. They observed that in vitro transcribed mRNA was recognised as foreign substance but **mRNA from mammalian cells did not give rise to any inflammation**. Karikó and Weissman realised that some critical properties distinguish between these two different types of mRNA.

Karikó and Weissman came to the conclusion that **bases in RNA from mammalian cells are frequently chemically modified** while in **in vitro transcribed mRNA they are not modified**.

RNA contains four bases, abbreviated A, U, G, and C, corresponding to A, T, G, and C in DNA, the letters of the genetic code.

Thus they started **producing different variants of mRNA by making alterations in their bases**. **These modified mRNAs** were delivered to the dendritic cells.

The results were striking as the **inflammatory response was almost abolished when base modifications** were included in the mRNA.

Their research represented through image-

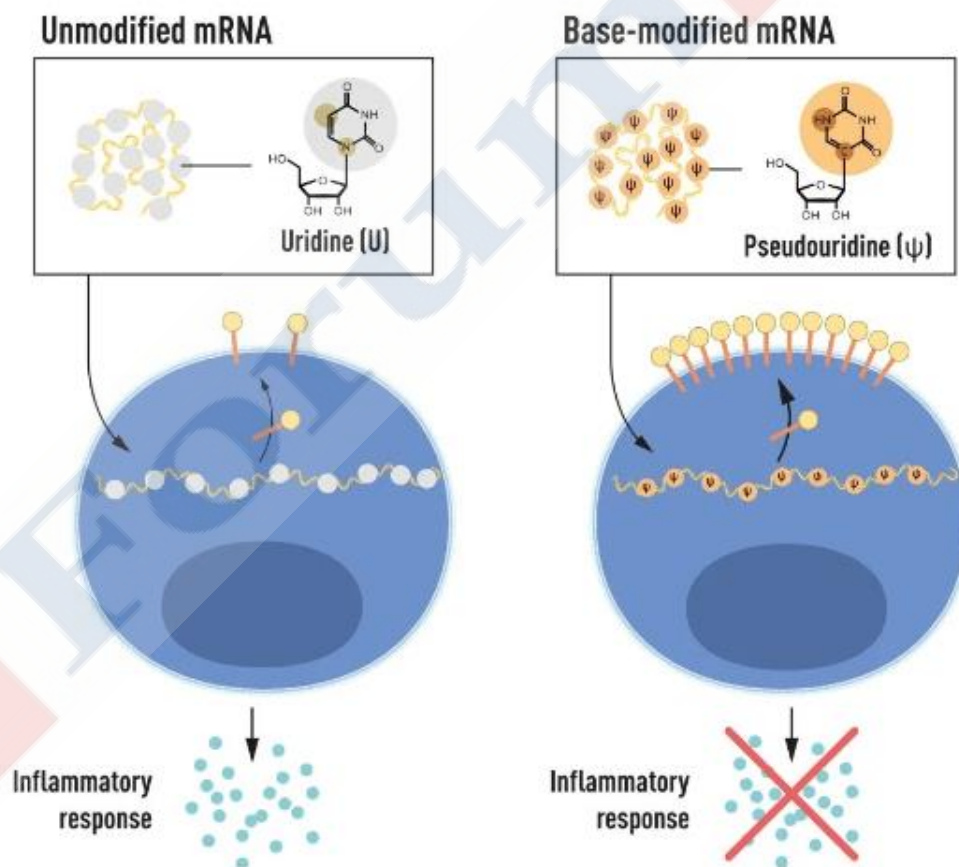


Figure 2. mRNA contains four different bases, abbreviated A, U, G, and C. The Nobel Laureates discovered that base-modified mRNA can be used to block activation of inflammatory reactions (secretion of signaling molecules) and increase protein production when mRNA is delivered to cells.

© The Nobel Committee for Physiology or Medicine. III. Mattias Karikó

Source- Nobel Prize

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What is the significance of this discovery for which Nobel Prize for Medicine 2023 has been awarded?

Development of COVID-19 Vaccine- The fundamental discoveries of the importance of base modifications in mRNA paved the way for **record production of COVID-19 Vaccines in record time**. More than 13 billion COVID-19 vaccine doses have been given globally. The vaccines have **saved millions of lives** and allowed societies to open and return to normal conditions.

Can be explored to treat Cancer and other diseases- The impressive flexibility and speed with which mRNA vaccines can be developed using the technology pave the way for using the new platform also for vaccines against other infectious diseases. In the future, the technology may also be used to deliver **therapeutic proteins ,treat some cancer types and for diseases like Malaria, HIV and Zika**.

What Should be the way Forward?

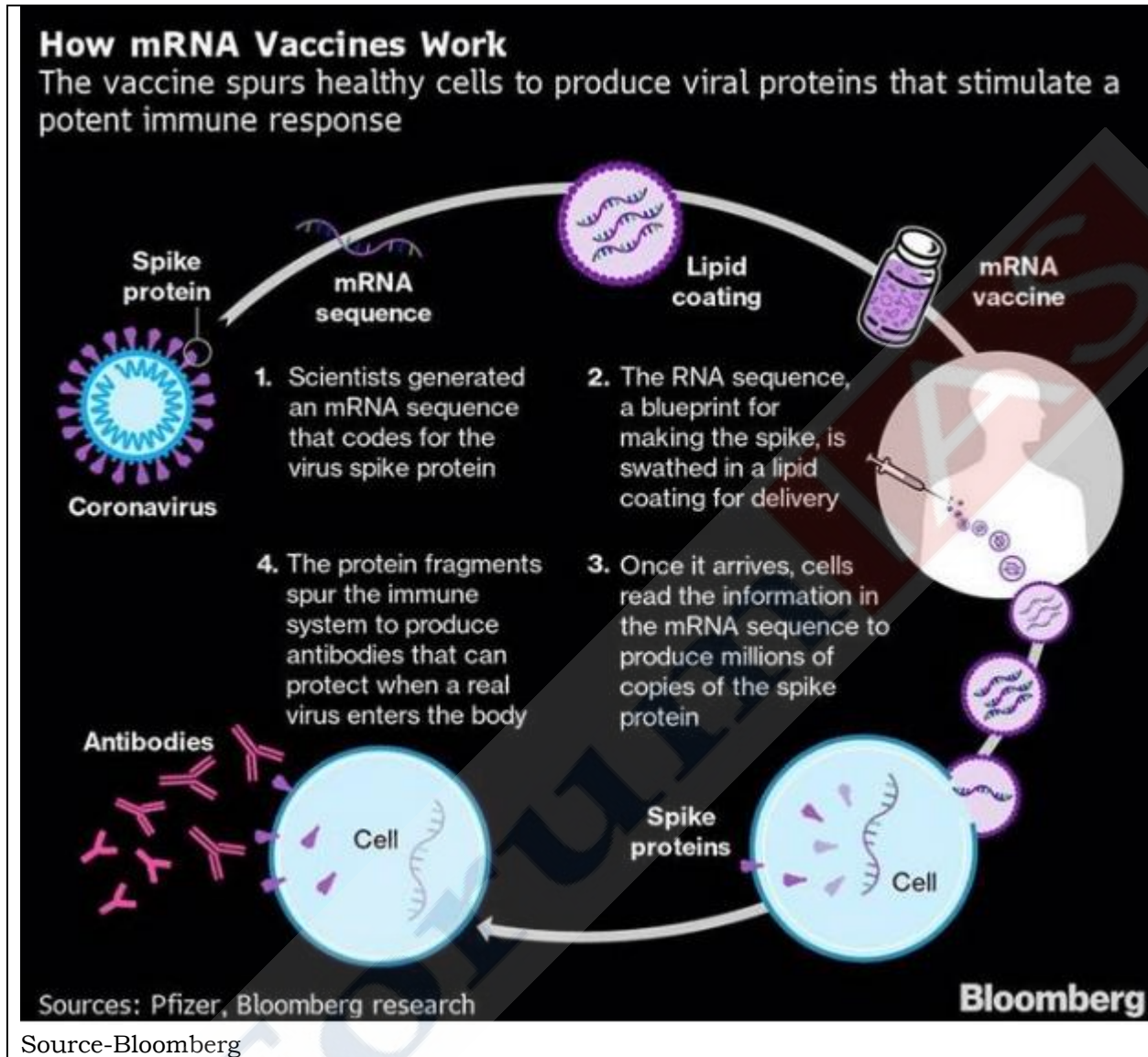
Making the benefit of the discovery of m-RNA vaccines available to every segment of the society and country equally through platforms like **COVERBAX and COVAX**. The technology should not be monopolised by the big pharma giants. Rather it should be used for benefit of “all mankind”.

India also needs to spend in research and development of new medical science technologies. India needs to shift its role from **“Vaccine manufacturer” to “Vaccine Developer”**.

Read More- [The Hindu](#) , [Indian Express](#)

Related Information- mRNA Vaccines

mRNA vaccines work by introducing a piece of mRNA that corresponds to a viral protein usually a small piece of a protein found on the virus's outer membrane. By using this mRNA, cells can produce the viral protein. As part of a normal immune response, the immune system recognizes that the protein is foreign and produces specialised proteins called antibodies. Once produced, antibodies remain in the body, even after the body has rid itself of the pathogen, so that the immune system can quickly respond if exposed again. Antibodies help protect the body against infection by recognizing individual viruses or other pathogens, attaching to them, and marking the pathogens for destruction. If a person is exposed to a virus after receiving mRNA vaccination for it, antibodies can quickly recognize it, attach to it, and mark it for destruction before it can cause serious illness. Individuals who get an mRNA vaccine are not exposed to the virus, nor can they become infected with the virus by the vaccine.



Old Pension Scheme(OPS) vs National Pension System(NPS)- Explained Pointwise

In recent times the issue of **Old Pension Scheme(OPS) vs National Pension System(NPS)(commonly known as new pension scheme)** has been a hotly debated topic in the economic and political circles of the country. The demand for returning back to the old pension scheme (OPS) is gaining traction. Several states such as **Rajasthan, Chhattisgarh, Jharkhand, Punjab and Himachal Pradesh** have already announced a shift back to the OPS.

Due to the growing clamour for returning back to the Old Pension Scheme, the Union government has formed a **committee headed by Finance Secretary TV Somanathan** to look into the issue of Old Pension Scheme vs National Pension System debate. The committee will consider if any changes are needed to the National Pension System (NPS) framework to **improve pensionary benefits while ensuring fiscal prudence.**

What is Old Pension Scheme(OPS) and National Pension Scheme(NPS)?

Old Pension Scheme (OPS)- The Old Pension Scheme(OPS) is applicable to all government employees appointed before January 1, 2004. The scheme is a “defined benefit scheme” as the government employees were paid 50% of their last drawn salary plus Dearness Allowance (DA) as pension after their retirement. Under this scheme, the entire pension amount was borne by the government while fixed returns were guaranteed for employee contribution to the General Provident Fund (GPF).

National Pension System (NPS)- The National Pension System (NPS) was introduced on January 1 2004. It was made mandatory for central government employees as well as staff of those state governments which adopted this scheme. However it remains voluntary for the workforce in the unorganized sector. The scheme is a “defined contribution scheme” as the government employees have to make defined contribution of 10% of basic pay and dearness allowance (DA). There is matching contribution by the government. There is no defined benefit. The pension benefit is determined by factors such as the amount of contribution made, the age of joining, the type of investment and the income drawn from that investment.

Old vs New

A look at the difference between the old and the new pension schemes

Old Pension Scheme	National Pension Scheme
<ul style="list-style-type: none"> ■ The scheme guarantees a life-long income, post-retirement 	<ul style="list-style-type: none"> ■ It is a participatory scheme, where employees contribute to their pension corpus from their salaries, with matching contribution from the government
<ul style="list-style-type: none"> ■ Government bears the expenditure incurred on the pension 	<ul style="list-style-type: none"> ■ The funds are invested in earmarked investment schemes through Pension Fund Managers
<ul style="list-style-type: none"> ■ Under the scheme, a monthly payment is assured, where the amount is equivalent to 50% of the last drawn salary 	<ul style="list-style-type: none"> ■ On retirement, 60% of the corpus, which is tax-free, is withdrawn while the remaining 40% is invested in annuities, which is taxed



Source- The Hindu

Read More- [OPS and NPS Forum IAS](#)

What is the status of NPS, the reasons for its introduction and the issues with the NPS?

Status of NPS today

With the introduction of NPS on January 1, 2004, all central government employees joining after this date were compulsorily enrolled in the National Pension Scheme(NPS). It was voluntary for the state governments to join the NPS. Almost all the states except for West Bengal and Tamil Nadu migrated to the NPS since adoption. However Rajasthan, Chhattisgarh, Jharkhand, Punjab and Himachal Pradesh have already announced a shift back to the OPS.

Reasons for the introduction of National Pension System (NPS)

Limited Coverage of the Old Pension Scheme(OPS)- The Old Pension Scheme(OPS) covered only the government employees which formed ~12% of the total workforce of the country.

National Pension Scheme aim was to provide pension coverage to **even the workers of the unorganised sector**. Workers of the unorganised sector can also join the NPS voluntarily.

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

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

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

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

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

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

Issues with National Pension System(NPS)

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

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

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

Why were states shifting back to the Old Pension Scheme (OPS) and what are the concerns?

Some states are shifting back to the Old Pension Scheme due to the following reasons.

Reasons for Shifting to OPS

Political Gains- OPS scheme has been politicised for gaining vote bank by the political parties. Government employees are a very vocal and an important pressure group and Vote Bank.

Deferment of matching Govt contribution- The Government when they switch to OPS **defer the payment of matching 10% contribution** towards NPS by a few years. This however is a very short respite for the government as they have to end up paying much more after few years when the employees under NPS start retiring.

Concerns raised against the re implementation of OPS

RBI, NITI aayog and Finance Commissions have highlighted the grave concerns that re-implementation of OPS poses. These are as follows

Lack of proper funding mechanism for OPS- There is **no separate corpus** for funding the pension liability. Also there were no clear mechanisms through which money could be raised and given to the pensioner.

Unsustainable- OPS is unsustainable because the **liability of pension will keep on increasing every year** due to the increase in dearness allowances (DA) and increase in life expectancy rates.

Increase in the burden of states- According to RBI report "State Finances- A study of budgets 2022-23", the central bank has highlighted that OPS poses to the entire fiscal structure of the state governments. **State governments are spending 1/4th of their revenues only on pensions.** It will further increase the debts of the states.

Will further burden the taxpayers- The current generation of taxpayers is already facing the burden of paying for the pensions of OPS employees and the government contributions newer employees under NPS. Returning back to OPS will further increase the burden on the taxpayers.

What Should be the way ahead?

Various economists have suggested several way out which are being scrutinised by the TV Somanathan committee. Some of the ways ahead can be as follows-

Designing an "Assured pension Scheme"- Some states have suggested designing an **"assured pension scheme"** by **linking it to minimum level of pay** and not the last drawn salary as provided under OPS.

Combining the OPS and NPS scheme- New pension framework can be designed by taking **"defined contribution"** by employees element of NPS and **"defined benefits"** of the OPS.

Role of future pay commissions- The future pay commissions should move towards the concept of **"cost to company"** (C-to-C) and **include the cost of assured pension** while determining pay revisions.

Restructuring the civil services- The government should also revisit the structure of the civil services to ensure that the organizations don't become **'top heavy'** as it would increase the pension burden liabilities.

Implementing the CAG recommendations on NPS reform- The following CAG recommendations on the NPS reforms must be implemented in the meantime.

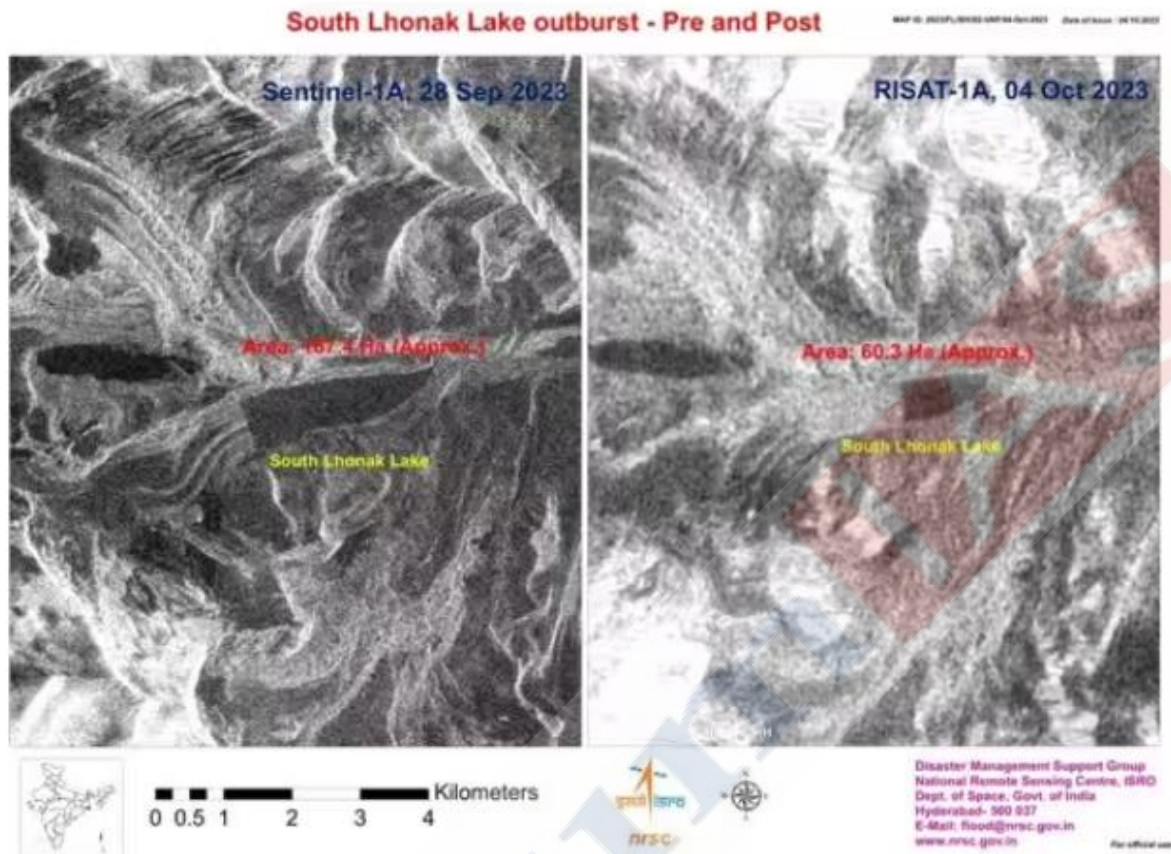
- (a) A foolproof system needs to be put in place to ensure all nodal offices and eligible employees are registered under NPS
- (b) Delays need to be penalized and compensation affected to avoid loss to the subscriber
- (c) Government to ensure that rules on the service matters are in place for the government NPS subscribers.

The experience so far has been that NPS has given good returns and many experts believe that the annuity is likely to be as attractive as in the old pension scheme, if not better. However, another set of experts criticize NPS due to its uncertainty. There is no doubt that old pension system will prove to be fiscally unsustainable. Thus current scenario warrants reforming NPS and providing a greater degree of assurance to the subscribers.

Read More- [Indian Express](#)

Glacial Lake Outburst Flood(GLOF)- Explained Pointwise

Recently, **Glacial lake Outburst flood(GLOF)** has caused heavy destruction in Sikkim. **South Lhonak Lake**- which is a glacial lake situated in north western Sikkim at 17,000 ft- burst due to incessant rains. This led to release of large volume of water in downstream areas. It caused a rise in the water levels of **Teesta river** that flooded the four districts of Mangan, Gangtok, Pakyong and Namchi of Sikkim. At least Fourteen people have been killed and 102 people (including at least 23 Army personnel) are missing due to this disaster.



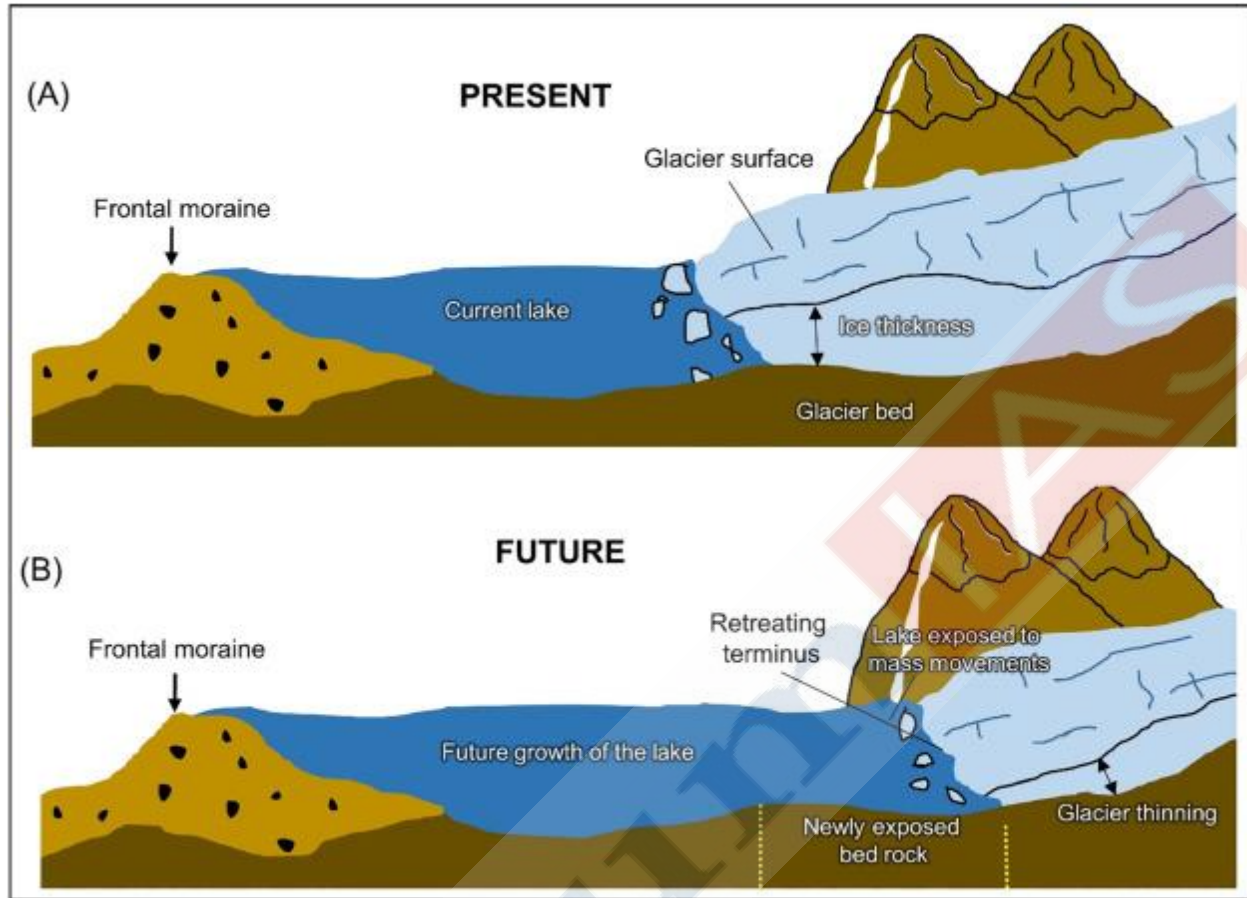
ISRO said that about 105 hectares have been drained out from the lake and gave a comparison of a September 28 image and an October 4 image. This might have created a flash flood downstream, it added. (Image via ISRO website)

Source- The Indian Express

What is Glacial Lake Outburst Flood(GLOF)?

Glacial Lakes- Glacial lakes, like the South Lhonak Lake, are large bodies of water that **sit in front or on top or beneath a melting glacier**. These glacial lakes are mostly dammed by unstable ice or sediment composed of loose rock and debris.

Glacial Lake Outburst Flood (GLOF)- As the glacial lakes grow larger, they become more dangerous because they are dammed by unstable ice or sediments composed of loose rock and debris. When the **boundary around these glacial lakes breaks**, huge amounts of water rush down the side of the mountains, which causes flooding in the downstream areas. This is called glacial lake outburst floods or GLOF.



Source- Science Direct

Some Examples of GLOF in India- 1. Uttarakhand Kedarnath Flash Flood 2013 induced by GLOF in the **Chorabari Tal glacial lake**. 2. GLOF in Uttarakhand **Chamoli District in the Nanda Devi Glacier**.

Read More- [GLOF Forum IAS](#)

What are the reasons for the Glacial Lake Outburst Flood(GLOF)?

The reasons for the Glacial Lake Outburst Flood(GLOF) are mentioned below.

Melting of Glaciers- **Rapid melting of glaciers** due to rising global temperature is increasing water level in the glacial lake. The increase in the volume of water puts pressure on the boundary of the glacial lake which consists of unstable ice and rubbles. The breaking of these natural boundaries lead to glacial lake outburst floods.

Avalanches and Earthquakes- **Landslides or ice avalanches** in the area near glacial lakes displace large volumes of water. This large volume of displaced water breaches the natural dams resulting in GLOF.

Extreme Meteorological Conditions- **Heavy rainfall, extreme storms and sudden temperature changes** can influence the stability of glacial lakes and trigger GLOF.

Climate Change Impact- The **Himalayan-Hindukush region** is a climate change hotspot region. Accelerated glacier melting leads to the formation of glacial lakes. These have increased the

GLOFs in the Himalayan region. Climate change has also increased the frequency and intensity of cloudbursts leading to GLOF.

Volcanic Activities- Volcanic activities near the glacial regions of the world can increase the chances of GLOF due to melting of the glaciers.

Susceptibility of Moraine embankments- Moraines and piles of debris carried by glaciers act as natural barriers of the glacial lakes. However these **moraines** which act as dams of the glacial lakes **are susceptible** to breaching leading to GLOF.

Anthropogenic Reasons- Modern infrastructure like **dams and roads** in the mountaneous regions intensify geological stresses which have led to GLOF like the **Chamoli GLOF 2021** due to multiple hydro power projects.

Reasons for the Vulnerabilities of the Himalayan Region to GLOF

The Himalayan states of India like **Uttarakhand, Sikkim, Himachal Pradesh** are vulnerable to GLOF.

1. Out of the **8800 glaciers** present in the Himalayan region, **200 glaciers** have been classified as dangerous, which can trigger the Glacial outburst.
2. According to the **Hindu Kush Himalayan Assessment report**, one-third of the region's glaciers would melt leading to increased GLOF.
3. The Indian plate is continuously moving towards north about 2 cm every year. So the Himalayas is rising about 5 mm a year. **This makes the Himalayan region geologically active and structurally unstable.** Landslides and earthquake are regular features here triggering glacial outburst floods.
4. The large human settlements and human activities have resulted in large scale deforestation. This intensifies the GLOF, as there is **no natural barrier** to control the flood.

What are the Impacts of Glacial lake of Outburst Flood(GLOF)?

GLOF have large negative impacts which breaks the back of economy and the country.

Loss of life- GLOF are deadly events which cause loss of life for those living in the affected area. People are caught off guard and there is not enough time to evacuate or prepare for the flood.

Infrastructural damage- The high volume and force of water released during a GLOF causes significant damage to infrastructure such as roads, bridges, buildings, and power plants. This leads to severe economic losses and long term disruption of essential services.

Agricultural damage- GLOF damage agricultural land, crops and livestock leading to food shortages and loss of income for farmers. These also have long-term effects on the local economy and pose challenges to food security.

Environmental damage- GLOF causes heavy destruction of biodiversity in the areas of its occurrence with heavy destruction of flora and fauna.

What should be the Way Forward?

Natural Disasters are difficult to stop. But mitigating the impacts of these disasters is in our hands. Thus **NDMA has realised its guidelines for prevention from the negative impacts of Glacial Lake Outburst Flood which must be followed in letter and spirit.**

Identification of Potentially Dangerous Lakes- Potentially dangerous lakes must be identified based on field observations, records of past events, **geomorphologic and geotechnical characteristics of the lake/dam and surroundings.** This will help us in preparing our development plan near these potentially dangerous lakes.

Increased Use of Technology- Promotion of use of **Synthetic-Aperture Radar imagery** (a form of radar that is used to create two-dimensional images) to automatically detect changes in water bodies, including new lake formations, during the monsoon months.

Channel out Potential Floods- Reducing the volume of water in the glacial lakes with methods such as **controlled breaching, pumping or siphoning out water** and making a **tunnel through the moraine barrier** or under an ice dam.

Enhancement of Early Warning Systems (EWS)- The number of deployed Early Warning Systems must be increased in the Himalayan region for effective mitigation of damage from the GLOF.

Comprehensive Alarm Systems- **Modern communication technology** using smartphones must complement the traditional alarming infrastructure of acoustic alarms. This will help in early evacuation in case of danger.

Development of Uniform Codes for Construction Activity- We must develop a broad framework for infrastructure development, construction and excavation in **vulnerable zones.** We must develop procedures for **land use planning** in the GLOF prone areas.

Training of Local Manpower- Apart from the specialised forces such as National Disaster Response Force (NDRF), ITBP and the Army, NDMA has emphasised on the need for training local manpower. It has been observed that over **80% of search and rescue is carried out by the local community before the intervention of the state** machinery and specialised search and rescue teams.

Read More- [Indian Express](#)

Left Wing Extremism (LWE) in India and its challenges – Explained pointwise

Introduction

Recently, a **review meeting on Left Wing Extremism** was chaired by the Union Home Minister New Delhi. The Chief Ministers, Deputy Chief Ministers and other concerned officials of Left Wing Extremism affected states were part of this meeting. Union Home Minister highlighted the achievements of government in countering Left Wing Extremism. Government has set the **goal of completely uprooting Left Wing Extremism in the next 2 years.**

Key Highlights of the High level Meeting on Left Wing Extremism

There has been a **decline of more than 52 per cent** in Left Wing Extremism related violence between 2014 and 2023 compared to the period from 2005 to 2014.

There has been a **decline of 69 per cent in deaths, 72 per cent in security forces deaths and 68 per cent in civilian deaths** between 2014 and 2023 compared to the period from 2005 to 2014.

195 new camps of CAPFs have been established with another 44 more new camps to be established in the coming years.

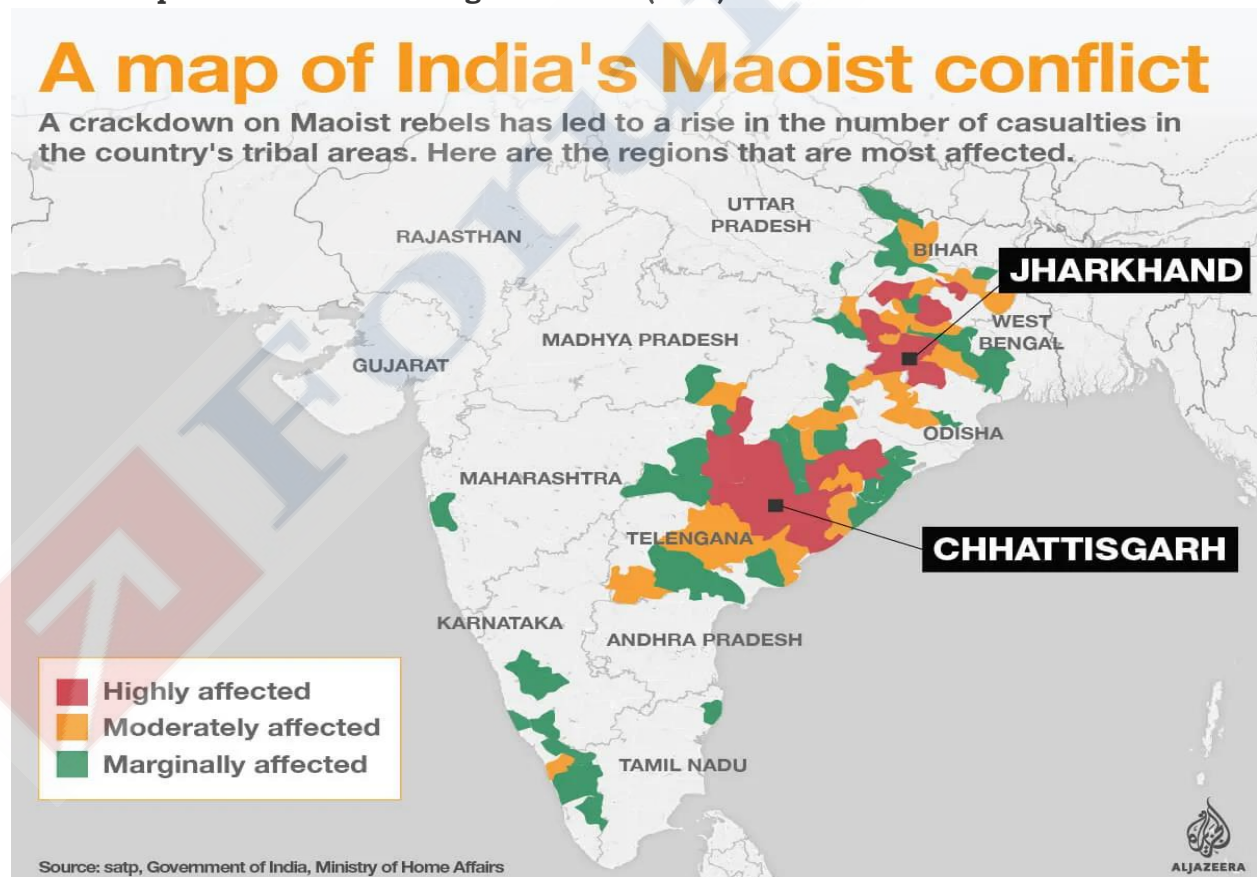
In the last 9 years, Modi government has **increased the Security Related Expenditure (SRE) by more than double** in comparison to the earlier period.

What is Left Wing Extremism?

Left Wing Extremism- Left-wing Extremism (LWE) is an **armed movement** rooted in **political ideologies that seek to bring about socio-political and economic changes through violent means**. It is also known as Naxalism or Maoism. It is a significant security threat in India particularly in regions like Chhattisgarh, Jharkhand. The recent attack in Dantewada, which claimed the lives of ten police personnel and a civilian driver, highlights the ongoing challenges that India faces in countering LWE and underscores the need for comprehensive strategies to address LWE in India.

Read here: [Left Wing Extremism in India – Explained, Pointwise](#)

About the prevalence of Left-wing extremism (LWE) in India



The prevalence of LWE in India, often referred to as the “Red Corridor,” remains a significant security challenge. This region stretches across several states, including Chhattisgarh, Jharkhand, Bihar, Odisha, West Bengal, and parts of Andhra Pradesh, Telangana, and Maharashtra.

Read here: [Why have Maoists killed again — and why do they repeatedly attack in Chhattisgarh?](#)

What are the reasons that led to the growth of Left-Wing Extremism in India?

The **2006 D Bandopadhyay Committee** identified governance gaps and extensive discrimination against tribals in economic, socio-political, and cultural spheres as the primary causes of Naxalism’s proliferation. Some of the reasons are enumerated below-

1. Inequitable Socio-economic development- Increasing Socio-economic inequities and unemployment in hinterland region nudge the youth to take up arms. There has been **disruption of traditional occupations** and lack of alternative work opportunities.

2. Governance failure- **Governance deficit** in the remote parts of Red Corridor regions led to the growth of Left Wing Extremism. There was **development apathy and huge corruption** in the red corridor area. For example- There was lack of food security due to corruption in the PDS scheme.

3. Political Marginalisation- The tribal groups were politically marginalised by the self-serving dominant groups. This led to **political deprivation among the marginalised groups** leading to hopelessness and a sense of powerlessness.

4. Land Alienation and Displacement- There was **failure of land reforms** especially in **land redistribution** after independence. The **development projects and acquisition of land** for industrial purposes have sometimes led to the **displacement of local communities without adequate compensation or rehabilitation**. This has been a focal point of Naxalite agitation.

5. Discrimination against tribals- There has been poor implementation of laws prohibiting transfer of tribal land to non-tribals in the Fifth Schedule areas. **Non-regularisation and hasty rejections of land grants of traditional land rights under FRA, 2006** have also led to the growth of left-wing Extremism.

What are the challenges posed by Left-wing extremism (LWE) in India?

Threat to Internal Security- Left-wing extremism poses significant internal security threats to India, leading to **violent clashes and loss of lives among security forces and civilians**. For example, Maoist rebels often engage in deadly attacks on security forces in remote areas like Dantewada.

Social and Economic Disruption: LWE in India disrupts social and economic development in affected regions, hindering infrastructure and welfare projects. For instance, the **Maoists target roads, schools, and other vital infrastructure** to maintain control over their territories.

Forced Recruitment and Child Soldiers: Maoist groups have been known to force vulnerable individuals, including children, to join their ranks, exploiting them for their cause. This practice **violates human rights and disrupts the lives** of countless innocent people.

Extortion and Illegal Activities: LWE groups often engage in extortion and other illegal activities to fund their operations. For example, they may demand “**protection money**” from local businesses, leading to economic stagnation in affected areas.

Political Instability: LWE contributes to political instability in India, as the affected regions struggle with governance issues and **weakened trust in democratic institutions**. This can undermine the overall stability of the country.

Human Rights Violations: LWE groups have been known to commit human rights violations, including extrajudicial killings, abductions, and torture. These actions not only **harm innocent civilians but also tarnish India's international reputation**.

Alienation of Tribal Populations: LWE often exploits and **alienates tribal populations** in their strongholds, creating a cycle of violence and mistrust between the communities and the government. This makes it difficult to address the root causes of extremism and to foster long-term peace and stability.

What are the various government policies to control LWE in India?

The Indian government has employed various approaches to control Left-wing extremism (LWE), focusing on a combination of security, development, and political initiatives. Some of these approaches include:

Security Schemes for LWE

'National Policy and Action Plan to address Left Wing Extremism 2015'- This comprehensive action plan aims to enhance the capabilities of security forces to combat LWE. This action plan ensures that the **rights and entitlements of local communities** are safeguarded and **focuses on socio-economic development** in affected regions.

SAMADHAN Doctrine- SAMADHAN Doctrine encompasses the entire strategy of government from short-term policy to long-term policy formulated at different levels. **SAMADHAN stands for-** S- Smart Leadership, A- Aggressive Strategy, M- Motivation and Training, A- Actionable Intelligence, D- Dashboard Based KPIs (Key Performance Indicators) and KRAs (Key Result Areas), H- Harnessing Technology, A- Action plan for each Theatre, N- No access to Financing.

Security Related Expenditure (SRE) Scheme- Under the Security Related Expenditure (SRE) Scheme, the Central Government **reimburses the Security Related Expenditure of 10 LWE affected States**. These security related expenditures are related to training and operational needs of security forces, ex-gratia payment to the family of civilians/security forces killed/injured in LWE violence, rehabilitation of surrendered LWE cadres, community policing, village defence committees and publicity materials.

Special Infrastructure Scheme (SIS)- Under this scheme, **funds are being provided to States for strengthening the infrastructure related to Security**. Under this scheme 250 Fortified Police Stations are being constructed.

Development Schemes for LWE

Road Connectivity Project for LWE affected areas (RCPLWE)-The Government introduced this scheme in 2016 for improving road connectivity in LWE affected States. The roads included under the scheme have been identified by the Ministry of Home Affairs in consultation with the State Governments and the security agencies. **8124 km roads and 306 bridge works have been completed** under this scheme.

LWE Mobile Tower Project- This project has been launched to **improve mobile connectivity** in the LWE affected areas. The aim is to improve the communication network for better governance delivery.

Aspirational District Programme- The Ministry of Home Affairs has been tasked with the monitoring of Aspirational districts programme in 35 LWE affected districts. Government has implemented various welfare and development schemes to **address the root causes of LWE, such as poverty, unemployment, and social inequality** in these aspirational districts.

Socio-Political Schemes for LWE

Panchayat Extension to Scheduled Areas (PESA) Act, 1996- Through this act government aims to **strengthen local governance** in LWE-affected areas by promoting democratic participation and empowering local institutions.

Civic Action Programme (CAP)-This Scheme aims to bridge the gaps between Security Forces and local people through personal interaction and bring the human face of Security Forces before the local population. The CAPFs deployed in LWE affected areas are provided funds for conducting civic activities for the welfare of the local people.

Media Plan- Maoists use **false propaganda to lure the youth** to join them in their fight against the democratic setup of our country. Government is implementing this Scheme in LWE affected areas to counter the false propaganda of Maoists. Under this scheme activities like **Tribal Youth Exchange programmes** are organised by NYKS along with **radio jingles, documentaries and pamphlet distribution**.

Inter-State Coordination- The government is promoting coordination among states affected by LWE to ensure a unified response. Ex- **Regular meeting of Union Home minister with the CMs and DyCMs of all LWE states**.

Surrender and Rehabilitation Policies- Government has introduced surrender and rehabilitation policies for LWE cadres willing to renounce violence and join mainstream society. These policies offer financial incentives, vocational training, and support for reintegration into society.

Read more: [Government of India's approach to counter the challenges posed by LWE](#)

What are issues associated with government measures to control Left-wing extremism (LWE)?

Human Rights Violations: Security operations against LWE have sometimes led to human rights violations, including **extrajudicial killings, arbitrary arrests, and harassment of civilians**. These actions can alienate local communities and create resentment against the government.

Inadequate Implementation of Development Schemes: Despite numerous welfare and development programs, their implementation in LWE-affected areas is often hampered by **corruption, bureaucratic inefficiencies, and a lack of coordination** between various agencies. As a result, the intended benefits may not reach the affected communities.

Insufficient Capacity Building of Security Forces: The security forces sometimes lack specialised training, equipment, and intelligence support to effectively tackle LWE. This sometimes leads to **operational failures and increased casualties** among security personnel.

Reliance on Force: Excessive focus on security operations overshadows the need for political engagement and dialogue with LWE groups. A **purely militaristic approach could prolong the conflict** and hinder efforts to find a peaceful resolution.

Incomplete Rehabilitation Programs: While surrender and rehabilitation policies exist, they are not effectively implemented. There are certain cases of **Inadequate support for reintegration such as insufficient vocational training** or financial assistance.

Lack of Trust and Cooperation: Mistrust between the government and affected communities **hinders the implementation of development initiatives** and security operations. Building trust is crucial for fostering cooperation and addressing the root causes of LWE.

Political Instability and Opportunism: Political instability and opportunism undermines efforts to address LWE. Politicians often **exploit the issue for electoral gains**. This further complicates the government's response to the problem.

What should be done to effectively control LWE in India?

Focus on Development- The successful implementation of **development projects in Andhra Pradesh and Telangana reduced Maoist influence**. Thus we must focus more on the effective implementation of development projects.

Strengthen Local Governance: Empowering local governments to address grievances and deliver public services effectively, as seen in the **Panchayati Raj system's success in reducing Naxalism in West Bengal**, can help build trust between communities and authorities.

Enhance Security Forces' Capabilities: Provide specialized training and better equipment to security personnel, similar to the **Greyhounds force in Andhra Pradesh**, which proved effective in countering LWE due to their specialized training and local knowledge.

Encourage Dialogue and Peaceful Resolution: Engage in meaningful dialogue with Maoist groups to address their grievances, similar to the **peace talks between the Indian government and Naga insurgents**, which led to a ceasefire and reduced violence in the region.

Foster Community Engagement: Involve local communities in decision-making processes and development projects, as seen in the success of the **Janmabhoomi program in Andhra Pradesh**, where community participation helped build trust and reduce Maoist influence.

Ensure Accountability and Transparency: Strengthen measures to prevent corruption and human rights abuses, as demonstrated by the **National Human Rights Commission's** interventions in cases of alleged human rights violations by security forces, which can help restore public trust in government institutions.

Read more: [Tackling the Maoists: On left-wing extremism](#)

Sources: The Hindu ([Article 1](#), [Article 2](#), [Article 3](#) and [Article 4](#)), Indian Express ([Article 1](#) and [Article 2](#)), [TOI](#) and [Livemint](#) ([Article 1](#) and [Article 2](#))

UPSC Syllabus: GS 3: Security Issues – Linkages between development and spread of extremism.

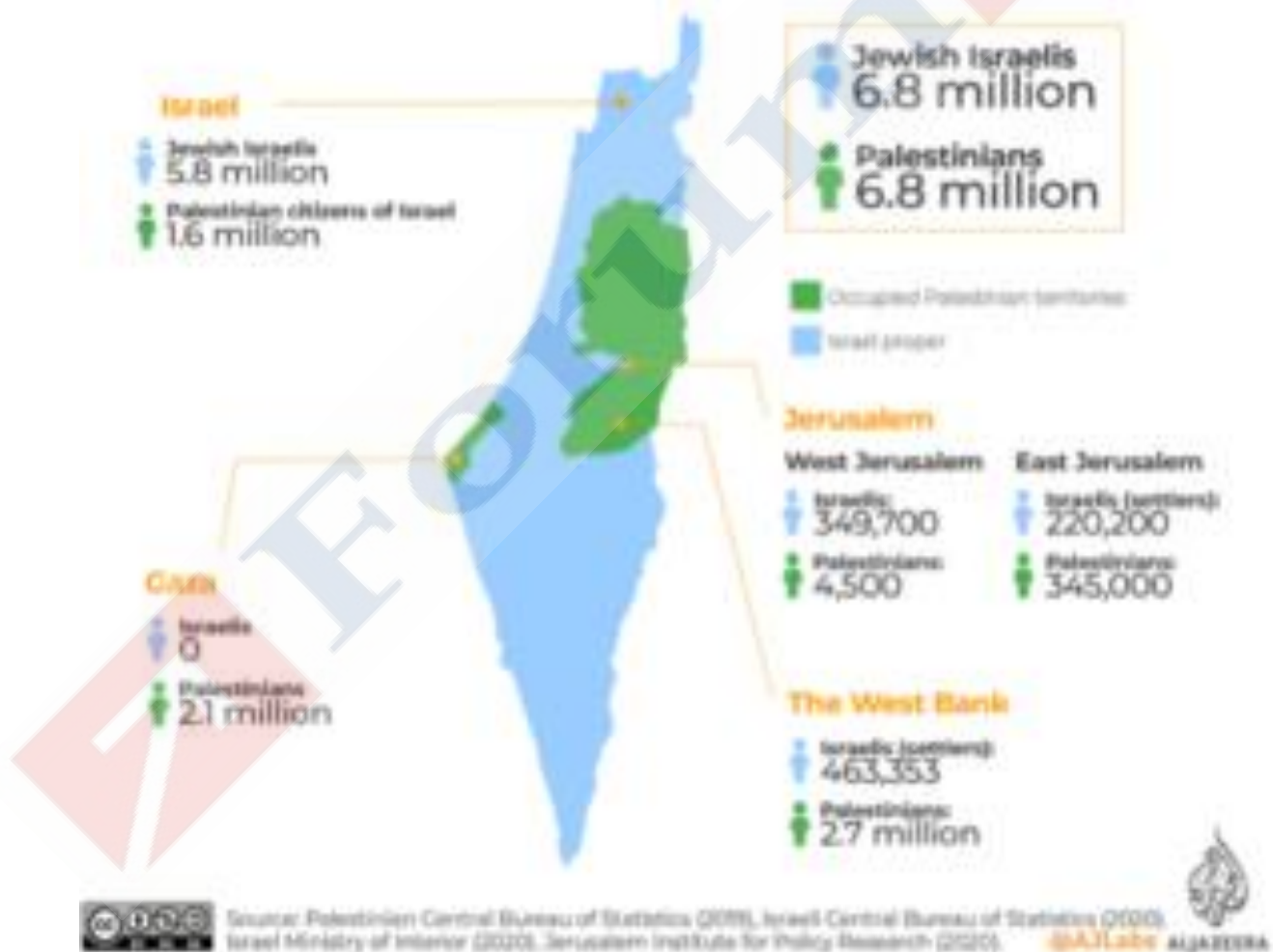
Israel-Palestine Conflict and India-Explained Pointwise

Israel-Palestine Conflict has again grabbed the international headlines. On October 7, 2023, **Palestinian militant organisation Hamas** attacked Israel that left at least 400 people dead. The **retaliatory attacks from Israel** have led to the deaths of more than 300 people in the Gaza Strip as on 8th October 2023. Israel's Prime Minister Benjamin Netanyahu has warned of a **"long and difficult"** war. This may add another war in the long drawn history of Israel-Palestine conflict.

What is Israel-Palestine Conflict?

Israel-Palestine Conflict- The Israel-Palestine conflict is one of the world's longest-running and most controversial conflicts. It is a **conflict between two self-determination movements- the Jewish nationalist project and the Palestinian nationalist project**, in the same territory.

Status of Israel and Palestine- The claims of both Jews and Arab Muslims date back to a couple of thousand years. However the current political conflict began in the early 20th century. Since then, there has been a **gradual expansion of territory occupied by Israel** and **today Palestinians are confined to only two regions – West Bank and Gaza Strip.**



Source-Aljazeera

Historical Timeline of Israel-Palestine Dispute

Year	Event	Significance
1897	Start of Zionist movement and creation of World Zionist Organisation .	Zionist Movement was started by the Jewish community to escape persecution and establish their own state in their ancestral homeland, Israel. As a result, a large number of Jews started flowing into Palestine , they bought land and started settling down there.
1916	Sykes-Picot Agreement - A secret agreement between Great Britain and France was signed.	This agreement led to the division of Ottoman Turkish Empire . Palestine came under the British control after the agreement.
1917	Balfour Declaration issued by the British Government during the WW I.	British expressed official support for a Jewish "national home" in Palestine under the Balfour Declaration.
1920s-1940s	Nazi Rule and Holocaust in Germany	More and more Jews started fleeing Europe fearing persecution. The tensions grew as Palestinian Arabs opposed the relocation of Jews in the area.
1947	United Nations adopted Resolution 181 known as the Partition Plan.	A partition plan was presented for independent Jewish and Arab states in Palestine and Jerusalem as an international city . This was accepted by Jews and on May 14, 1948, the State of Israel was created. This partition plan was not accepted by Arabs.
1948-1949	First Arab Israel War	The Jewish declaration of Israel's independence induced surrounding Arab states to attack. At the end of the war , Israel controlled around 50 percent more territory than originally envisioned in the UN partition plan. Jordan controlled the West Bank and Jerusalem's holy sites , and Egypt controlled the Gaza Strip . Large number of Palestinian people were killed and forced to flee. This was the beginning of Palestinian refugee crisis.
1964	Formation of Palestine Liberation Organisation (PLO)	The Palestine Liberation Organization (PLO) was formed as the national representative of the Palestinian people .
1967	Six day war between the Israeli forces and Egypt, Jordan, and Syria.	Israel emerged victorious in this war. After the war, Israel gained territorial control over the Sinai Peninsula and Gaza Strip from Egypt ; the

		West Bank and East Jerusalem from Jordan; and the Golan Heights from Syria.
1973	Yom Kippur war between Israel and Syria and Egypt to regain their lost territories.	The war did not result in significant gains either for Egypt, Israel, or Syria. But it allowed Egypt and Syria to negotiate over previously ceded territory in the Six Day War.
1979	Camp David Accords signed between Egypt and Israel.	The peace treaty that ended the thirty-year conflict between Egypt and Israel. This accord improved relations between Israel and its neighbours. But the question of Palestinian self-determination and self-governance remained unresolved.
1987	First Intifada or First Palestinian Uprising in the regions of Gaza and West Bank. Hundreds of people were killed.	The Intifada came to an end with the Oslo Peace Accords signed in 1993 and a second accord signed in 1995. The Oslo Accords resulted in the Palestinian rights of self governance, withdrawal of Israeli forces from 6 cities and 450 towns in the West Bank and mutual recognition between the newly established Palestinian Authority and Israel's government.
2000	Second Intifada was launched over Palestinian grievances over Israel's control over the West Bank, a stagnating peace process, and former Israeli Prime Minister Ariel Sharon's visit to the al-Aqsa mosque	In response, the Israeli government approved the construction of a barrier wall around the West Bank in 2002, despite opposition from the International Court of Justice and the International Criminal Court. A ceasefire was finally announced and Israel planned to withdraw all troops and Jewish settlements from the Gaza Strip by 2005 end.
2008	Beginning of Israel Hamas wars. Three wars were fought in 2008, 2012 and 2014.	These Israel Hamas wars are regular yearly features now. The current war is also being fought between Israel and Hamas which controls the Gaza strip.

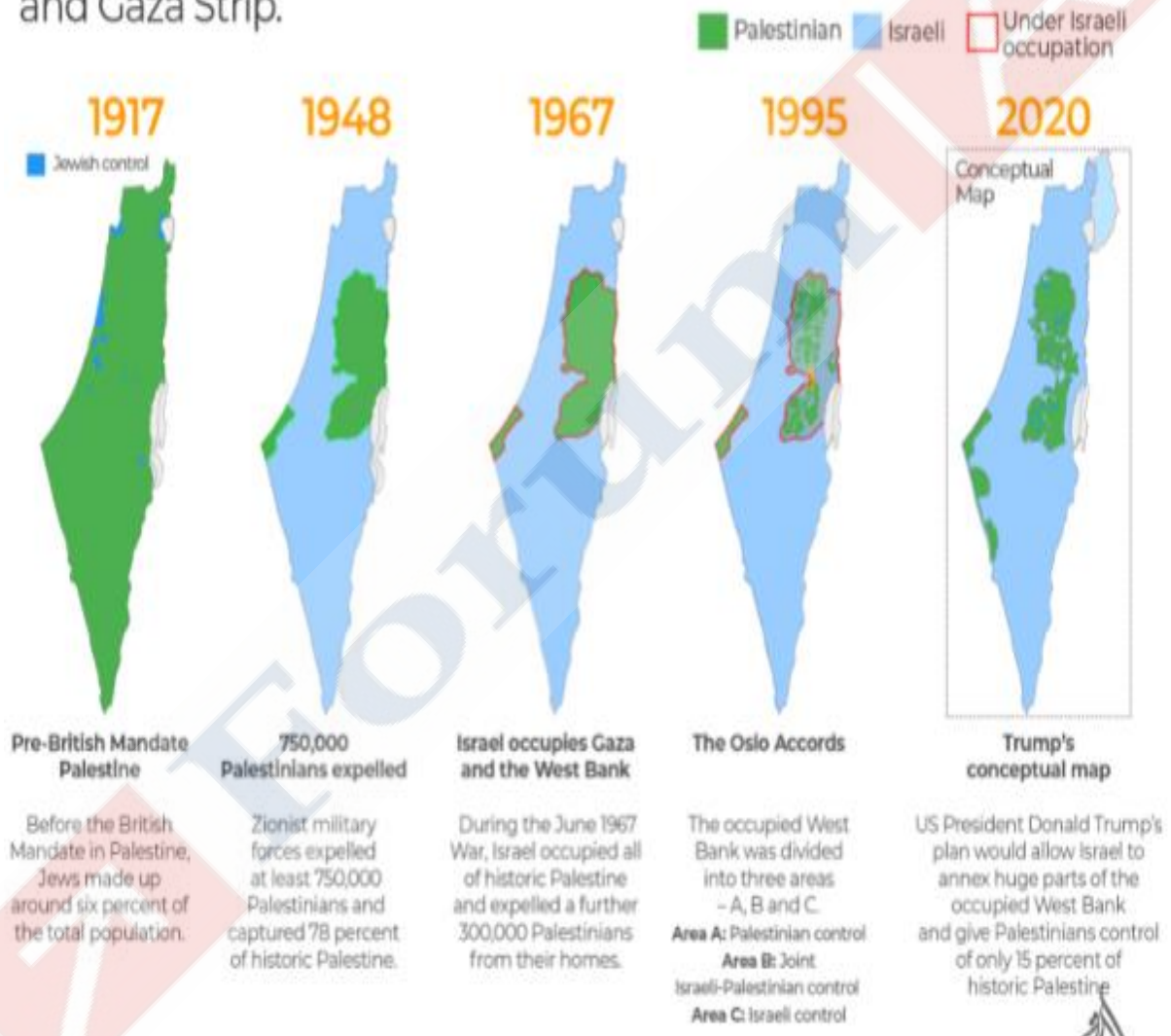
***Hamas**- Hamas is an offshoot of the Muslim Brotherhood movement. It fights for the rights of Palestinians. After the death of Yasser Arafat who headed the Fatah party in 2004, Hamas emerged stronger. In 2007, the group seized power from Fatah party in Gaza after a civil War. Since then **Hamas controls Gaza strip while Fatah party rules in West Bank**. Hamas has been declared as a terrorist organisation by the US, Israel, EU, Canada etc.

Increasing Israel's area under occupation- Explained through Map

ISRAEL/PALESTINE

Palestinians expelled

In 1948, Zionist military forces expelled at least **750,000** **Palestinians and captured 78 percent of historic Palestine.** The remaining 22 percent was divided into the West Bank and Gaza Strip.



Source- AlJazeera

Current Situation of Israel-Palestine territories



Source: BBC

Gaza Strip	<p> Hamas rules over Gaza. Gaza's borders are tightly controlled by Israel and Egypt. Gaza has been under Israeli sea and air blockade since 2007.</p>
West Bank	<p> According to the Oslo accord ,the occupied West Bank was divided into three areas – Area A(Under Palestinian control), Area B(Under Joint control) and Area C(Under Israeli control). Control of areas had to be gradually transferred from Israel to Palestine. However Israel has been construction Separation Walls, Increasing the security checkpoints and allowing illegal settlements in these areas. Israel has been increasing its hold over the West Bank.</p>
Jerusalem	<p> West Jerusalem has been Israeli territory since 1948 with Jews in the majority. East Jerusalem, which houses the</p>

	Old City of Jerusalem including the Al-Aqsa Mosque compound, is Palestinian majority and was occupied by Israel in 1967. The whole of Jerusalem is claimed by Israel as its capital. Palestinians claim East Jerusalem as the capital of a future Palestinian state.
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Read More- [Forum IAS](#)

What are the reasons for the Israel-Palestine Dispute?

With the Israel-Palestine dispute again back in focus, we must look at the reasons for this dispute.

Normalisation of Relations between Israel and Arab World- Abraham Accords was signed between Israel and UAE, Bahrain in 2020. Later Sudan and Morocco joined in 2020. Saudi Arabia and Israel have also been coming together for various economic projects like IMEC. Hamas wants to disrupt this normalisation of relation between Israel and the Arab countries.

Hamas's aim of taking leadership of Palestinian cause from the Palestinian Authority(PA)- The Palestinian Authority (PA) is the official government of the Palestinians that signed the Oslo Peace Accords with Israel but it never resulted in the promised Palestinian state. The PA today is riddled with corruption, misgovernance and has lost legitimacy. Hamas through this attack has been trying to take leadership of the Palestinian cause from the PA.

Support to Hamas operations by Hezbollah ,Iran and Qatar- Hamas is being provided logistical, technological and intelligence support by terrorist organisations like Hezbollah operating in Lebanon and funding by Iran and Qatar.

Unresolved Jerusalem Dispute- Both Israel and the Palestinians hold competing claims to the city. Israel, which occupied the formerly Jordanian-held eastern part in 1967, regards the whole of Jerusalem as its capital. The Palestinians insist on East Jerusalem as their future capital. This has resulted in Intifada like the Al-aqsa intifada.

Increasing Israeli Settlements in West Bank- Since 1967, Israel has built about 140 settlements in the occupied West Bank and East Jerusalem. They are considered illegal by most of the international community, though Israel disputes this. Palestinians say all settlements must be removed for a Palestinian state to be viable.

Border Dispute- Israel and Palestine have dispute on the border. Palestinians insist on borders based on ceasefire lines which separated Israel and East Jerusalem, the West Bank, and Gaza between 1949 and 1967. However, Israel insists on an extended eastern border stretching up to the Jordan River.

No Consensus on Palestinian Statehood- No consensus has been developed over the status of Palestinian Statehood among PLO and Israeli officials. Further Israel insists that any peace deal must include Palestinian recognition of it as the “nation-state of the Jewish people”.

Political Division among Palestinians- The Palestinians remain politically divided between Fatah and Hamas, and thus are unable to negotiate jointly. Further, Israel is unwilling to negotiate with the violent group Hamas.

Lack of pursual of peace process- Both Israel and Hamas have not been following the path to achieve peace in the region. Israel has continued to build settlements in the West Bank, raising

security barriers and checkpoints, limiting Palestinian movements, and never hesitating to use force or collective punishment to keep organised Palestinians under check. But the recent attacks from Hamas killing 700 Israelis does not help the Palestinian cause. It has only escalated the conflict.

What are the Global Ramifications of the Conflict?

Disrupt the geopolitical realignment Process in Middle East- Middle East in recent times has been witnessing geopolitical realignments from the **Israel-Arab reconciliation to the Iran-Saudi détente**. However the recent conflict will disrupt this peace and normalisation process being pursued by middle eastern countries.

Make the Middle East as theatre of War- Middle East had been a theatre of War with Wars like **Gulf War, Iraq war, 6 day war**. The recent conflict has potential to become a full blown war with involvement of foreign powers like US, EU. This would make the region a theatre for proxy wars like US and Iran.

Disrupt the global connectivity projects and global transport routes- The envisaged projects like **India Middle East Economic Corridor (IMEC)** will be disrupted by this prolonged conflict. The escalation of the conflict would endanger the strategic supply routes like the **Strait of Hormuz and the red sea**.

Disrupt the Global supply Chains and increase Inflation- The escalation of the conflict will impact the **oil production and supply of goods**. This will further increase inflation which has already been rattling the world economy.

What has been India's position on the Israel-Palestine Conflict?

India's Position on the Israel-Palestine conflict is tabulated below-

India's position on Israel-Palestine conflict from 1947 to 1992

India blindly supported the Palestinian cause rooted in idealism.

In **1947**, India voted against the partition of Palestine at the United Nations General Assembly. Also, Indian political leadership actively supported the Palestinian cause and refused to have full diplomatic relations with Israel.

In **1964**, India supported the formation of Palestine Liberation Organization (PLO). This made India the **first non-Arab country to recognise PLO** as the sole representative of the Palestine.

In **1988**, India was one of the first countries to recognize the State of Palestine .

India's Policy towards the Israel-Palestine conflict after 1992

As a part of the Link West Policy, India **de-hyphenated** its relationship with Israel and Palestine. As part of the Policy, India started treating **both countries as mutually independent and exclusive**. It means India's relationship with Israel will depend upon its own merits. Thus began a phase of independent and exclusive engagement.

In **1992**, India established full diplomatic ties with Israel. But at the same time, India supported the Palestinian cause.

In 1993, after the Oslo Peace accord, India opened a Representative Office for it in Gaza. This office was later shifted to Ramallah in 2003.

In 2011, India voted in favour of accepting Palestine as a full member of UNESCO.

In 2014, India supported the UNHRC's resolution to probe Israel's human rights violations in Gaza. But in the next year, India abstained from voting against Israel in UNHRC.

In 2017, the de-hyphenation policy enabled the first Indian PM visit to Israel in 2017 while supporting the Palestinian cause.

India has maintained the image of a historical moral supporter for Palestinian self-determination. At the same time, the policy of de-hyphenation allowed India to engage in the military, economic, and other strategic relations with Israel.

India's stance on the current Conflict

Prime Minister Narendra Modi has called the Hamas attack on Israel as "terrorist attacks" and conveyed "solidarity with Israel". This recent conflict has put India into diplomatic tight spot. The current hostility tests the Abraham Accords and the rapprochement between Saudi Arabia and Israel, which held the promise of reshaping age-old fault lines in the Middle East. India was hoping to reap the dividends of the newfound peace in the region.

What will be the impact of the Israel-Palestine Conflict on India?

India through its support for Israel has chosen sides in the recent conflict. However any prolonged conflict will not augur well for India.

Impacts our De-hyphenation and West Asia Policy- India had been successfully implementing its de-hyphenation policy in the region. India's relation with both the Arab World and Israel has improved. However the current conflict puts **India in a diplomatic tightspot** to choose one side. India cannot afford to lose either.

Increase in Inflation- Any prolonged conflict in the Middle East will **impact the oil and gas production**. Inflation in the country will further increase as India is heavily dependent upon imported oil and gas.

Depreciation of the Indian Rupee- The conflict will **impact the inflow of FPI and FDI in the Indian financial market**. Increase in oil prices will further increase India's Current Account Deficit(CAD). All these will lead to depreciation of the Indian rupee.

Effect on the India Israel Trade- Israel is a major defence and strategic partner of India. Involvement of Israel for a long period in the conflict will **drastically reduce the trade between India- Israel**. In FY23, India's total exports to Israel stood at \$8.4 billion while India's imports from Israel were at \$2.3 billion.

Reduction of the remittances from West Asia and safety of Indian emigrants- India has a **large diaspora and emigrant population** in West Asia. These are a source of large amount of remittance to India(~40 bn dollars). If the conflict turns into a full blown war across the middle east, India will be severely impacted. The remittances will plummet. **Safe Evacuation of the Indian diaspora** will also be a grave challenge.

What should be the way forward?

The recent Israel-Palestine dispute can turn into a major crisis if the global leadership does not act in time. Following methods should be adopted for early resolution of the dispute.

Adoption of the Arab Peace Initiative offer- This offer was proposed by the Saudi Arabia in the name of all Arab countries in 2002. This offer required the creation of a Palestinian state on the lands Israel occupied in the Six-Day War of 1967. In return, Israel would be fully recognised and accepted. This offer can be the only basis for a lasting peace between Israelis and Palestinians.

Need to treat it as Israel-Arab conflict rather than Israel-Palestine(Hamas) conflict- The conflict is not only between Israel and Palestine but also with other Arab countries such as **Egypt, Jordan, Iran, Syria**. All of them should participate in the negotiations and the final agreement should be recognized formally by each one of them along with UN general assembly and security council.

UNSC must step up- UNSC must broker a **peace talk between the two warring factions**. Global leadership platforms must be used to not let middle east become another theatre for warfare.

Ensure proper adherence to UNSC resolution 2334- UNSC resolution 2334 concerns the Israeli settlements in Palestinian territories occupied since 1967, including East Jerusalem. **The illegal Israel settlements in West Bank must be removed** at the earliest.

Follow the ICC ruling of February 2021- The February 2021 International Criminal Court (ICC) ruling should be implemented in spirit. It **allows the ICC to investigate persons committing war crimes in the Palestinian Territories** of the West Bank and Gaza Strip.

India should act as a mediator- India has good relations with both the Arab World and Israel. Instead of India choosing side in the war, it must use **its soft power and diplomatic outreach to solve the dispute**.

Conclusion

The world is at inflexion point today after COVID and the Ukraine-Russia war. We cannot let another war continue which will disrupt the global supply chains. The international community must try to instill peace among the two states. Further any successful peace initiative would **need to resolve the four core issues** that have plagued the peace process- **West Bank borders/settlements, Israeli security, Palestinian refugees, and Jerusalem**.

Read More-Indian Express

UPSC Syllabus- Effects of Policies and politics of developed and developing countries on India's interests, Indian Diaspora.

[Yojana October 2023 Summary] Space Infrastructure In India- Explained Pointwise

Development of **Space Infrastructure in India** has played a crucial role in the success of Indian Space Sector. Indian Space sector is being primarily led by the **Indian Space Research Organisation (ISRO)**. There has been a considerable development in ISRO's space infrastructure

since its inception in 1962. The development of these critical infrastructure has attracted private players and private investments in the space sector.

What is space infrastructure?

Space infrastructure refers to the physical and organizational components **which are necessary to support human activities and operations in space**. This infrastructure is critical for various space-related endeavours, including scientific research, communication, navigation, national security, and commercial ventures.



Source-Yojana

What are the components of space infrastructure and India's progress in these infrastructure?

The various components of space infrastructure and India's progress in these infrastructures are mentioned below.

Components	India's organisation and its achievements
Launch Vehicle Technology	<p>Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram is responsible for the design and development of launch vehicle technology. Satish Dhawan Space Centre (SDSC)-SHAR is the spaceport of India and provides the launch base infrastructure facilities in launching these vehicles. Liquid Propulsion Systems Centre (LPSC) is responsible for the design, development, and realisation of advanced propulsion systems for launch vehicles and space propulsion systems for spacecrafts. Major achievements of VSSC, SDSC, LPSC has been enumerated below-</p> <p>Polar Satellite Launch Vehicle (PSLV)- The PSLV is capable of launching satellites weighing up to approximately 1,750 kilograms to sun-synchronous orbits (SSO) and around 3,800 kilograms to geosynchronous transfer orbits (GTO). It has been used to launch Chandrayaan-1 lunar orbiter in 2008 and the Mars Orbiter Mission (Mangalyaan) in 2013. It has been the workhorse of ISRO.</p>

	<p>Geosynchronous Satellite Launch Vehicle (GSLV)-The GSLV is used to deploy communication satellites, weather satellites and other payloads into various orbits. There are different versions of GSLV, including GSLV Mk I, GSLV Mk II and GSLV Mk III (also known as LVM-3 or GSLV Mk III). GSLV has been more powerful than PSLV.</p> <p>Launch Vehicle Mark-3 (LVM3)- GSLV Mk III is the heaviest and most powerful launch vehicle developed by ISRO and is primarily used for launching heavier payloads into GTO and beyond. It has played a crucial role in India's Chandrayaan-2 mission to the Moon and the launch of the GSAT series of communication satellites.</p> <p>Small Satellite Launch Vehicle (SSLV)- It is a type of rocket designed specifically to launch small satellites into space. These small satellites are often referred to as CubeSats or SmallSats. These are typically much smaller and lighter than the traditional larger satellites. These have been developed for increased launch of small private sector satellites.</p> <p>Critical technologies towards human spaceflight Gaganyaan- These have been designed by VSSC, SDSC and LPSC.</p>
Satellites	<p>U R Rao Satellite Centre (URSC)-Bengaluru, Space Applications Centre (SAC)-Ahmedabad and ISRO Telemetry, Tracking and Command Network (ISTRAC)-Bengaluru have helped in the development of various satellites ranging from navigation to communication. Some of the Major satellite series of India are as follows-</p> <p>INSAT (Indian National Satellite System)- A series of communication satellites that have provided a wide range of services, including telecommunication, television broadcasting, and meteorology.</p> <p>IRS (Indian Remote Sensing) Program- This program has launched a series of Earth-observing satellites, providing valuable data for applications in agriculture, forestry, water resource management, and disaster monitoring.</p> <p>NavIC System- ISRO has developed the Navigation with Indian Constellation (NavIC) system, a regional satellite navigation system similar to GPS.</p>
Lunar, Martian and Human Space Infrastructure	<p>Human Space Flight Centre (HSFC) has helped India develop critical technologies which will help India in sending humans in space. Some critical technologies have already been tested in our Lunar and Martian missions like the Chandrayaan and Mangalyaan.</p>
Commercial Space Ventures	<p>Antrix Corporation Limited (ACL), New Space India Limited (NSIL) and Indian National Space Promotion and Authorization Centre (IN-SPACe) have been created to increase the private sector participation in the space sector.</p>

What is the significance of development of Space Infrastructure in India?

Boost to India's push for "Space Industrialization"- The development of India's space infrastructure provides an opportunity for India to push for **Space Industrialization**.

Boost to the Indian space-tech ecosystem- The development of Indian space infrastructure has given a major boost to Make in India space program. India's space economy can reach **\$100 billion by 2040**.

Boost to future ISRO's Vision and programs- The growth and development of Indian space infrastructure has given boost to **ISRO's future vision like launch of satellites powered by electric motors, quantum communications, human space flight, reusable launch vehicles, planetary habitation and interplanetary communications**.

Enhancement of India's role and position in the Artemis accord- India is now a member of the Artemis Accords (the U.S.-led multilateral effort to place humans on the moon by 2025 and thereafter to expand human space exploration to the earth's wider neighbourhood in the solar system). With the growth of the infrastructure of space missions, **India has an opportunity to lead the other Artemis countries alongside the U.S.**

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

Read More- [Forum IAS](#)

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

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

Manpower Challenges- ISRO faces manpower challenge due to the problem of **Brain Drain** and fewer students pursuing advanced space studies.

Solely Government funded space infrastructure- Some critics have argued that such massive spending by the government alone in these **space infrastructure curtail Indian government's spending capability in social sectors** like poverty alleviation, education and health which must be the priority for developing country like India.

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

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

Technological Challenges- ISRO faces **technological up gradation challenges like powerful launch vehicles with higher payload capacity**. It was seen in the case of Chandrayaan-3. While Chandrayaan-3 took nearly six weeks to get to the Moon, the failed Russian mission Luna-25 took just one week to touch down (although it crashed).

What should be the Way forward?

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

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

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

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

Conclusion-

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

Read More- [The Hindu](#)

UPSC Syllabus- Infrastructure: Energy, Ports, Airports, Roads, Railways, and others
Indigenization of technology and development of new technology

India-Israel Relations- Explained Pointwise

News and Context

India-Israel relations have further deepened, after the Indian PM assured **'unqualified support to Israel'** in the recent Israel-Palestine conflict. India has completely backed Israel in the wake of Hamas terror attacks. This unqualified support of India to Israel, shows the **progress** of India-Israel relations from **'Palestine-leaning'** to **'strategic embrace of Israel'**.



Source: BBC

Source-BBC

What is the History of India-Israel Relations?

In 2022, India and Israel jointly celebrated **30 years of full diplomatic relations**. However the **arc of India's ties with Israel** has been a **'roller coaster'** over the past seven decades.

India-Israel Relations from 1947 to 1992

During this phase, India firmly supported the **Palestinian cause**. India rejected the idea of two nations on the basis of religion. Thus India's relations with Israel remained limited to bilateral recognition.

Major Milestones in India-Israel Relations between 1947-1992

1947	India voted against the partition of Palestine and admission of Isreal as member in the UN.
1950	India recognised Israel in 1950 after two Muslim-majority countries, Turkey and Iran , recognised Israel.
1953	Israel was allowed to open a consulate in Mumbai in 1953, but no diplomatic presence was granted in New Delhi.

However, the progress in India-Israel relations remained slow as compared to the progress in India-Palestine Relations.

In 1975, India recognised PLO as the sole and legitimate representative of the Palestinian people and permitted it to open an independent office at New Delhi. In 1983, at the NAM summit of New Delhi, a statement of solidarity for Palestine was passed. In 1987, India supported Palestinian intifada (uprising) in Gaza and West Bank.

India was one of the last non-Muslim states to recognise Israel but it became the first non-Arab state to recognise the PLO.

India-Israel Relations from 1992 to 2017

India made drastic changes in its policy towards West Asia and Israel. This change of Policy was driven by several factors.

Firstly, the Arab countries adopted neutral position during the 1962 India-China war and supported Pakistan during the 1965 and 1971 war. Secondly, Israel helped India with arms and ammunition in the 1962 and 1965 wars. And finally, with the disintegration of Soviet Union in 1990 and PLO's support of Iraq in Kuwait war, India changed its policy of total support to Palestine and ignorance of Israel.

India adopted Link West Policy. As part of the Policy, India de-hyphenated its relationship with Israel and Palestine. As part of the Policy, India started treating both countries as mutually independent and exclusive. It means India's relationship with Israel will depend upon its own merits. Thus began a phase of independent and exclusive engagement with Israel.

Major Milestones in India-Israel Relations between 1992-2017	
1992	India established full diplomatic ties with Israel.
1999	Precision target bombs were provided by Israel which played a decisive role in the Kargil War.
2000	Beginning of the High level Political Visits. Foreign Minister Jaswant Singh went for the first bilateral visit in 2000. This was followed by more bilateral visits later.
2003	Ariel Sharon became the first Israeli Prime Minister to visit India.

However, despite of deepening engagement with Israel in military, economic and scientific domains, India continued to support Palestinian self-determination. In 1993, after the Oslo Peace accord, India opened a Representative Office for it in Gaza. Later the office was shifted to Ramallah in 2003. In 2011, India voted in favour of accepting Palestine as a full member of UNESCO. In 2014, India supported the UNHRC's resolution to probe Israel's human rights violations in Gaza.

India-Israel Relations from 2017 onwards

After 2017, there have been visible signs of preference of Israel as a major partner. In 2017, India dropped the customary line in support of East Jerusalem, the capital of Palestine. In 2017, Indian PM visit to Israel did not include Ramallah, which was the customary practice.

However, India did try to balance its relations with Palestine in this time period. In 2018, Indian PM made a separate visit to Ramallah. India voted against the recognition of Jerusalem as Israel's capital.

But in the present conflict, India has chosen Israel's side for the first time. Also for the first time, India has condoned Hamas' actions.

What is the significance of India-Israel relationship?

Israel is a significant partner for India because of the following reasons-

Economic and Commerce

India has a positive trade balance with Israel. India is Israel's third-largest trade partner in Asia. The bilateral merchandise trade has grown from USD 200 million in 1992 to USD 6.35 billion (excluding defence). In recent years, bilateral trade has diversified into several sectors such as pharmaceuticals, agriculture, IT and telecom, and homeland security. Many Israeli companies have set up R&D centres in India and have been involved in technology transfers.

Defence

India imports critical defence technologies from Israel. Nearly 41 % of Israel defence exports are to India. Indian armed forces use Israeli Phalcon AWACS (Airborne Warning And Control Systems), Heron drones to Barak anti-missile defence systems. India and Israel have also set up Joint Working Group on Counter-Terrorism. On Kashmir issue (broadly Pakistan), Israel has stood by India, either by providing crucial intelligence inputs or weapons during wars.

Energy

India has been awarded exploration license to extract and import natural gas from the Tamar and Leviathan gas fields. This is a clear sign of diversification of the relation from defence to energy sector.

Science & Technology

India-Israel Industrial R&D and Technological Innovation Fund (I4F) has been set up to promote, facilitate and support joint industrial R&D projects. Joint Committee on S&T has been established under the S&T Cooperation Agreement signed in 1993.

Space

In 2002, India and Israel signed a cooperative agreement promoting space collaboration. India has successfully launched TecSAR and RISAT-2 radar imaging satellites of Israel from PSLV of ISRO.

Agriculture

India has benefited from Israeli expertise and technologies in horticulture mechanization, orchard and canopy management, micro-irrigation (drip irrigation technology) and post-harvest management. India and Israel have launched a three year joint working program in 2021 for enhanced agricultural cooperation.

Diaspora

There are about **85,000 Jews of Indian-origin in Israel** (with at least one Indian parent), who are all Israeli passport holders. This diaspora population forms a strong emotional connect between India and Israel.

What are the challenges in India-Israel Relations?

However, despite the progress made in India-Israel relations, there are several challenges in the relations-

Balancing relations with the Arab world and Israel- Israel's strained relations with Arab countries like Iran, has created **difficulties for India in balancing its relations** with both of them. Arab countries have a **large expatriate Indian population(source of remittances)** and are a **major pillar of energy security** for India.

Recurring Israel Palestine skirmishes- It becomes **difficult for India to delink Israel and Palestine** in India's foreign policy. The recurring Israel Palestine skirmishes and wars create challenges for India at the Socio-political and economic level.

Human rights violations- Israel has been accused of **committing human rights violations against Palestinians**. India faces tough **diplomatic tests in UN, UNHRC and UNSC** on frequent resolutions against Israel.

Increasing Chinese influence in Israel- China is Israel's **largest trading partner** in Asia. China is attracted to Israel's technology sector. Israel is **welcoming China's investments** and research collaboration projects. Increasing Chinese influence reduces the Indian diplomatic space.

Bilateral Trade and investment still below potential- Bilateral trade has **stagnated at around \$6 billion**(excluding defence). Bilateral trade is also mainly **confined to diamonds and defence**. Also there has not been further progress on the **Free Trade Agreement**.

Read More- [Impact of the Israel-Palestine conflict on India](#)

What Should be the way Forward?

Diffusion of tensions between Israel and Palestine- Israel-Palestine war will be a major threat to the financial stability of India and the World. India **must undertake sincere efforts to mediate** between Israel and Hamas for peace.

Ensure the principles of Abraham Accords are followed- India must diplomatically negotiate with the Arab countries so that the **principles of Abraham Accords** are followed. India must also **nudge Saudi Arabia to sign the rapprochement deal with Israel** despite the ongoing tensions.

Proactive Diplomacy- India must be diplomatically proactive **to counter the growing Chinese influence** in Israel.

Early conclusion of FTA- The Free trade Agreement between India and Israel must be **negotiated and signed at the earliest**. This will increase the bilateral trade between the countries.

Proper implementation of the dehyphenation Policy- India's dehyphenation policy of Israel and Palestine must be properly implemented. Though Israel comes across as a natural partner, India should also be concerned about the human rights issues in Palestine. India needs to **balance its geostrategic needs and international morality**.

Read More- [The Indian Express](#)

UPSC Syllabus- Bilateral, Regional and Global Groupings and Agreements involving India and/or affecting India's interests.

Effect of Policies and Politics of Developed and Developing Countries on India's interests, Indian Diaspora.

Nobel Prize in Economics 2023- Explained Pointwise

News and context

Nobel Prize in Economics 2023 has been awarded to **Claudia Goldin**. Claudia Goldin's work has **uncovered** the key drivers of **gender difference** in the labour market. Goldin **is individually the first** and only **the third woman** in history to win this honour.

About Nobel Prize in Economics

The Nobel Prize in Economic Sciences was established in 1968 by the Sveriges Riksbank (the central bank of Sweden) in memory of Alfred Nobel, the inventor of dynamite and the founder of the Nobel Prizes. It is officially called the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel.

The Nobel Prize in Economic Sciences or the Sveriges Riksbank Prize in Economic Sciences is **not one of the original Nobel Prizes**. The original Nobel Prizes are awarded only in the fields of Physics, Chemistry, Medicine, Literature, and Peace. The original Nobel prize has been established by Alfred Nobel's will.

The Prize recognizes individuals or organizations for their exceptional research, discoveries, or contributions that have advanced the understanding of economics and its application to real-world problems.

What are the observations of Claudia Goldin's research work that has been awarded the Nobel Prize in Economics 2023?

Claudia Goldin collected over 200 years of data from the US for her research work. According to Goldin, **women** are vastly **underrepresented** in the global labour market. Women are **paid less** than men.

Claudia Goldin has demonstrated the gender differences in employment rates and earnings. She has provided the explanation for her observations.

1. Women's Labour Force Participation(LFP) Rate

What is Goldin's Observation- The participation of married women decreased with the transition from an agrarian to an industrial society in the early nineteenth century, but then started to increase with the growth of the service sector in the early twentieth century. There is a **U-shaped relationship** between economic development and women's Labour Force Participation(LFP).



Source- Nobelprize.org

Goldin's Explanation of the observation-According to Goldin, in the **agrarian economies**, women had a higher Labour Force participation, as women could fulfill both her domestic responsibilities and her duties on the farm. However, **industrialisation** made it harder for married women to work from home since they were unable to balance the demands of family and work. But with the **growth of service sector and rise in women education levels** in the 20th century, Labour force participation of women has increased.

2.Earning gap between women and men

What is Goldin's Observation- Despite modernisation, economic growth and rising proportions of employed women in the twentieth century, there still exists **significant gap** between the earnings of men and women.

Goldin's Explanation of the observation- Goldin has attributed the existing gap in the wages of men and Women to three factors-

- 1.**Occupational segregation**- Women work in stereo typically **feminine jobs** that are lower paying.
- 2."**Greedy Jobs**" and "**Mommy Track**"- "**Greedy jobs**" have massive wage premiums but, in return, require long work hours, networking, late-night meetings, travel. "**Mommy track**" jobs are less paying & less demanding jobs, which allows taking care of the kids' school, homework, sports, music lessons, and doctor visits. According to Goldin, in most families, the **man is in the greedy job** and the **woman is on mommy track**. This creates a large pay gap between men and women.
- 3.**Role of Expectations and Career Choices**- Women are expected to play a mother's role and

raise children. Thus their educational decisions and career choices are impacted by the future expectations from them as mothers. Hence, women settle for low paying careers from childhood itself.

3. Marriage Barriers in Employment

What is Goldin's observation- By the beginning of the 20th century, while around 20% of women were gainfully employed, the share of married women was only 5%.

Goldin's Explanation of the observation- Goldin has attributed this low share of married women participation in the workforce to two factors.

1. "Marriage bars"- the practice of firing and not hiring women once married.
2. "Long and uninterrupted careers" in the service sector led to the exclusion of married women from the workforce.

These two factors explain why the average employment level for women increased by so little, despite the massive influx of women into the labour market in the latter half of the century.

4. Role of Contraceptive Pills

What is Goldin's observation- Use of easy-to-use contraceptive pills by the end of the 1960s led to an increase in the female labour force participation rate.

Goldin's Explanation of the observation- Contraceptive pills allowed women to exercise greater control over childbirth and plan their careers and motherhood. This led to more women studying subjects like law, economics and medicine and entering various fields of employment.

5. Bias in hiring of female candidates

What is the research- In her work, "Orchestrating Impartiality: The impact of blind auditions on female musicians", Goldin showed that auditions for symphony orchestras done behind a screen, where the jury cannot see the candidate, resulted in greater hiring and advancement of women.

What is Goldin's Explanation- Goldin has attributed the low women labour force participation rate, to lower hiring of women due to the patriarchal bias of the recruiter. The patriarchal bias of the recruiter leaves the deserving women out of the workforce.

Read More-[Forum IAS](#)

What is the significance of the research awarded the Nobel Prize in Economics 2023?

The research of Claudia Goldin has provided significant insights on the status, role and participation of women in the workforce. This has a lot of significance which are mentioned below-

Making all economic analysis and policy-making gender sensitive- The research of Goldin can be applied in making the Government policies more gender sensitive. It can also be used to design special policies for women employment.

Provides knowledge about underlying barriers hindering women employment- Goldin's work has made us aware about various barriers like "marriage bars", "mommy track", "greedy jobs" phenomena, which hinders women employment in modern economies. India which is transitioning into a modern economy, must remove these barriers to reap rich economic dividends.

Effective implementation of birth control Programmes- Goldin's work has demonstrated how the use of birth control pills gave women the choice and agency to shape their careers. India must promote and effectively implement its **Antara programme**, to increase the use of oral contraceptive pills.

Increase in the investment in women education- Goldin has pointed at the role of Women education in propelling economic growth and increasing individual productivity. There is a strong link between the "**American Century**" and the "**Human Capital Century**". Developing countries like India, must also commensurately invest in women education so as to make it the "**Indian century**".

Conclusion

There had always been a widespread prevalence, of the **acutely unfounded notion that economic growth alone can automatically reduce gender differences** in the labour market. Many developing countries like India, need to study this issue more closely to develop better women centric labour policies.

Source- **Indian Express**

UPSC Syllabus- Inclusive Growth and issues arising from it

Global Hunger Index 2023- Explained Pointwise

News and Context

Recently, Global Hunger Index 2023 was released by **Concern Worldwide** (Irish NGO) and **Welt Hunger Hilfe** (German NGO). India has been placed at **111th position out of 125** countries. In the Global Hunger Index(GHI) 2022, India was placed at 107th position out of 121 countries. The Women and Child Development Ministry has said that the global hunger index suffers from "**serious methodological issues** and shows a **malafide intent**".





Key Findings of the Global Hunger Index(GHI) 2023	
Global Hunger Trends	
Stagnation in the progress of hunger reduction efforts	The progress of hunger reduction efforts was rapid till 2015. However after 2015, the hunger reduction efforts have not brought such rapid decline in the global hunger levels. In 2015, World's GHI score was 19.1 which has just improved to 18.3 in 2023. (0 is the best score (no hunger) and 100 is the worst).
Reason for stagnation	Reason for stagnation has been attributed to the compounding impacts of climate change, conflicts, economic shocks, the global pandemic, and the Russia-Ukraine war.
Best and worst performing countries	Belarus, Bosnia & Herzegovina, Chile, China and Croatia are the top five countries in GHI 2023. Chad, Niger, Lesotho, Congo, Yemen, Madagascar, and Central African Republic are the countries ranked at the bottom of the index.
India's Performance in GHI 2023	
Key Data Points	<p>India's Rank- 111 out of 125</p> <p>India's Score- 28.7 on a 100-point scale (0 is the best score (no hunger) and 100 is the worst)</p> <p>Hunger status- Severe</p> <p>Undernourishment rate- 16.6%</p> <p>Child Wasting- 18.7% (Low weight for height)</p> <p>Child Stunting- 35.5% (Low height for Age)</p> <p>Child Mortality-3.1% (Death of Children below 5 years)</p> <p>Anaemia among women (age 15-24)- 58.1%</p>
Comparison with other South Asian Countries	India fares worse (rank lower) than all South Asian countries. India is at 111th position while Pakistan is at 102nd, Bangladesh is at 81st, Nepal is at 69th and Sri Lanka at 60th.

What is Global Hunger Index and what is its methodology?

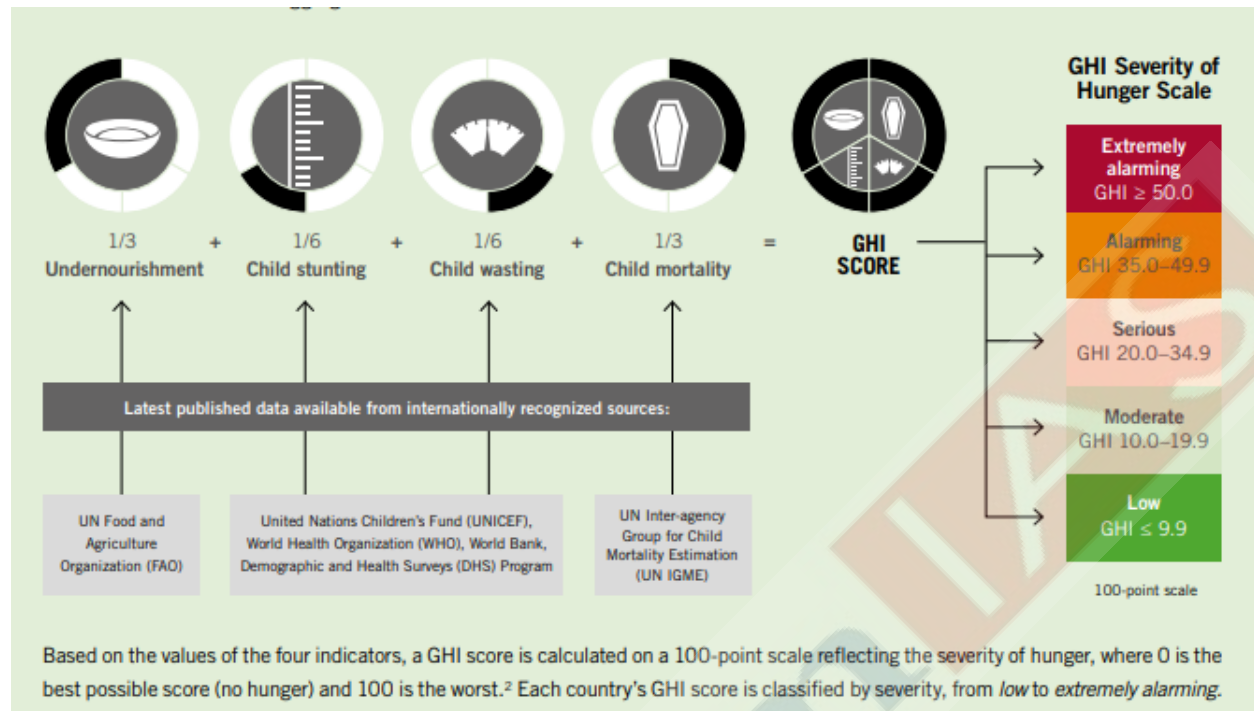
Global Hunger Index(GHI)- The GHI is a tool designed to comprehensively measure and track hunger at global, regional and national levels.

Methodology of Calculation of GHI

The GHI score of each country is calculated based on a formula combining **four indicators** that together capture the multidimensional nature of hunger.

S.No.	Indicators	Description	Logo
1	Undernourishment	The share of the population with insufficient caloric intake	
2	Child stunting	The share of children under age five who have low height for their age . Reflects chronic under nutrition .	
3	Child wasting	The share of children under age five who have low weight for their height . Reflects acute under nutrition .	
4	Child mortality	The share of children who die before their fifth birthday . Reflects the fatal mix of inadequate nutrition and unhealthy environments.	

These four indicators are aggregated as follows to calculate the final GHI score-



Source- Global Hunger Report

Why has the Methodology of Global Hunger Index 2023 been criticised by the Indian Government?

Indian Government has rejected the methodology of Global Hunger Index. It has called it a flawed measurement of “hunger” that does not reflect India’s true position. Government of India’s criticism are as follows-

1. Use of Child Centric Indicators to determine overall hunger- The government contends that **three indicators**(Child stunting, Child Wasting & Child Mortality) of the **four indicators** used in the GHI calculation **pertain solely to child health**. Govt has argued that such indicators cannot accurately represent the entire population’s hunger status.

2. Calculation of Undernourishment- The significant indicator-‘Proportion of Undernourished population’- relies on a **limited opinion poll of only 3,000 individuals**. Govt of India has challenged the legitimacy of drawing nationwide conclusions from such a limited sample size.

3. Use of Child Mortality as an indicator- Use of Child mortality as an indicator of GHI is based on the assumption that Child mortality is directly linked to hunger. However government has challenged this assumption. Govt has asserted that child mortality is influenced by multifaceted factors, making it an **insufficient metric** for evaluating hunger levels.

4. GHI data contradicts with Poshan Tracker Data of Indian govt- The government has highlighted a **significant disparity** between the GHI 2023’s data of 18.7% child wasting rate and Poshan Tracker’s data of ~7.2% child wasting rate.

Read More- [ForumIAS](#)

What are the causes of Hunger in India?

Despite Indian Government's categorical rejection of the methodology of Global Hunger Index, we can not be oblivious to the presence of hunger and malnutrition in the country. Government of India's NHFS data has confirmed the presence of large number of Wasted and stunted Children. Listed below are the reasons for the hunger and malnutrition in India-

Declining agriculture output from small and marginal holdings- Almost **50 million households in India** are dependent on small and marginal holdings. However the agricultural productivity of these holdings is declining due to reduced soil fertility, fragmented lands and fluctuating market prices.

Declining income levels- The **Periodic Labour Force Survey (PLFS) 2017-18** has revealed that rural unemployment stood is at 6.1 per cent, which is the highest since 1972-73. These have adverse effects on the capacity to buy adequate food, especially when food prices have been on the rise.

Ineffective implementation of PDS scheme- PDS scheme is not functioning well in many states due to **corruption and inclusion errors**.

Protein hunger- Pulses are a major panacea to address protein hunger. However, there is a **lack of budgetary allocation** for inclusion of pulses in PDS. Also there is no inclusion of eggs in the mid-day meal menus of many states.

Micro-nutrient deficiency (hidden hunger)- India faces a severe crisis in micro-nutrient deficiency due to **poor dietary intakes, prevalence of diseases & non-fulfilment of increased micro-nutrient needs** during pregnancy and lactation.

What steps have been taken by Government to reduce hunger in India?

Government of India has taken the following steps to fight the hunger and malnutrition in India-

Implementation of National Food Security Act 2013- It has legally entitled 75% of the rural population and 50% of the urban population to receive **subsidized food grains** under the Targeted Public Distribution System.

Launch of POSHAN Abhiyan- It has been launched by the Ministry of Women and Child Development in 2018. It targets to reduce **stunting, under nutrition, anaemia** (among young children, women and adolescent girls).

Food Fortification Programs- Food Fortification or Food Enrichment is the **addition of key vitamins and minerals** such as iron, iodine, zinc, Vitamin A & D to staple foods such as rice, milk and salt to improve their nutritional content. Food fortification has been launched by the government to fight the micro-nutrient deficiency(hidden hunger).

Eat Right India Movement- An outreach activity organised by the Food Safety and Standards Authority of India (FSSAI) for citizens to nudge them towards **healthy eating**.

What should be the way forward fight hunger in India?

Listed below are the recommendations of the Global Hunger Report that should be implemented to fight hunger and malnutrition in India.

Focus on small and marginal holdings- A renewed focus on small and marginal holdings is imperative as it would ensure **food security** in the country.

Dietary supplements in Mid day meals- Mid-day meals in Anganwadis and Schools must **include dietary supplements** so as to reduce micro-nutrient deficiency.

Give boost to rural employment schemes- Rural employment schemes such as **MGNREGA** should be given a boost to increase employment and wages. This will enable the rural population to ensure their food security.

Streamline PDS System- Access to food grains under the PDS needs to be streamlined by **simplifying technical processes** and reducing **Aadhaar-related glitches**. Also 'One Nation One ration Card' scheme's implementation must be thoroughly monitored.

Read More- [Indian express](#)

UPSC Syllabus- Issues relating to poverty and hunger

India-Maldives Relations- Explained Pointwise

News & Context

India-Maldives relations has become a major challenge for India's foreign policy establishment. In the recently concluded Maldivian Presidential elections, the Challenger candidate **Dr. Mohamed Muizzu** defeated President **Ibrahim Mohamed Solih**. The Maldivian Presidential election was being seen as a tussle between **India First vs India out campaigns**. The victory of Mohamed Muizzu is being seen as **Victory of India Out Campaign**.

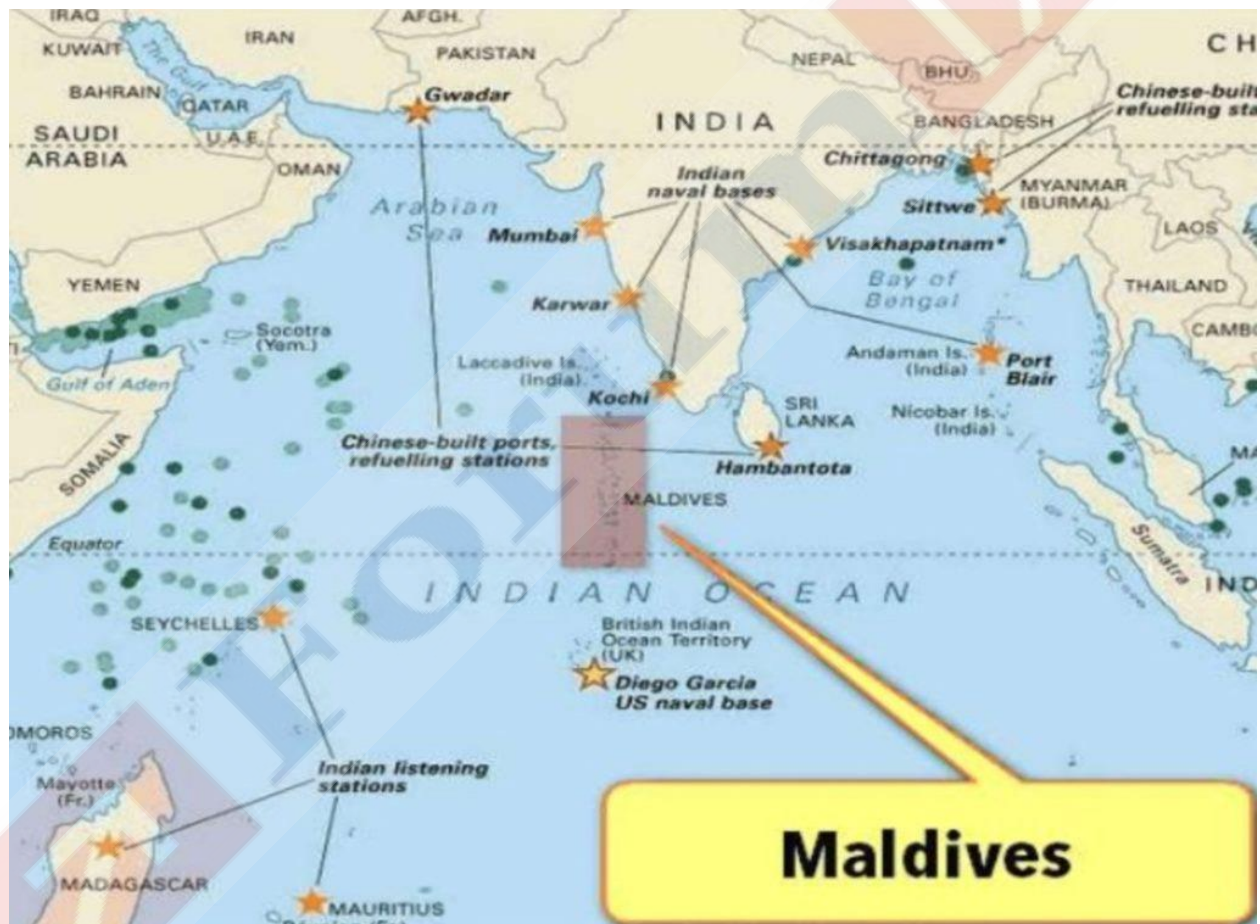
What is the 'India out' Campaign and 'India First' Policy?

	<p>'India Out' campaign-It is a political movement to mobilise people in Maldives against India. The campaign is against the presence of Indian military on Maldivian soil. The campaign got louder around key bilateral developments such as the signing of the Uthuru Thila Falhu (UTF) harbour development deal with India in February 2021 & India's announcement of the opening of a consulate in the southern Addu Atoll.</p>
<p>India Out Campaign</p>	<p>Supporters of the Campaign- Abdulla Yameen who was the President of Maldives from 2013-2018 joined the campaign. Yameen was Pro-China during his tenure. Yameen signed FTA with China and gave ultimatum to India to withdraw two Indian helicopters from the strategically important Laamu and Addu atolls. The current president designate Dr. Mohamed Muizzu rallied support around the 'India Out' campaign.</p>
<p>India First Policy</p>	<p>India First Policy- Maldives preference for India as the first choice in security partnership, socio-development assistance and COVID response(Vaccines).</p>

Proponent of the Policy- Ibrahim Mohamed Solih after he became the president in 2018 adopted the India First Policy. This Policy aimed to reverse the anti-India policies of Yameen between 2013-2018.

What is the Historical Background of India-Maldives Relations?

India and Maldives share ethnic, linguistic, cultural, religious, and commercial connections that date back to ancient times. The name Maldives is believed to be of Sanskrit origin (Mala (garland) + Dweep (Island)). The islands are believed to have been inhabited as early as 5th century BC by settlers from Sri Lanka and Southern India. There were close trade relationships between India and Maldives during ancient and medieval times.



Source- Asian times

Historical Evolution of India-Maldives Relations

1965	In 1965, Maldives gained Independence from the British. India was one of the first countries to establish diplomatic relations with Maldives. Indian Mission was set up in Male in 1972.
1978	In 1978, President Maumoon Abdul Gayoom took charge in Maldives. Gayoom made many visits to India which strengthened India-Maldives ties.
1988	In 1988, India sent its troops and ships to help Gayoom overthrow a coup attempt by a Maldives businessman and Sri Lankan Tamil fighters.
2008	In 2008, Mohamed Nasheed was elected President. During his tenure, India began closer security cooperation with Maldives. India loaned 2 helicopters, dornier aircraft and patrol boats to Maldives. These were for maritime reconnaissance, surveillance and coast guard security ops.
2013	In 2013, Abdulla Yameen of the opposition PPM was elected to power. The Presidential Period of Yameen saw major strains in the India-Maldives ties . India raised objections to Yameen's imposition of emergency. Yameen adopted pro-China policies . Yameen signed FTA with China & invited Chinese companies in for a number of major investments including the Hulumale island housing projects and friendship bridge. On the other hand Yameen threatened to evict Indian pilots and personnel from Maldives.
2018	In 2018, Ibrahim Mohamed Solih won the presidential elections by defeating Yameen. He adopted India-First Policy . India was invited to start many infrastructure projects including the \$500mn Greater Male connectivity project . In 2021, India-Maldives signed the Uthuru Thilafalhu project to maintain a coastguard harbour base for India. This sparked the India Out campaign .

The election of Dr. Mohamed Muizzu who rallied support around the 'India Out' campaign will test the friendly India-Maldives relations. New Delhi is anxiously watching the developments in Maldives.

Read More- [Forum IAS](#)

What is the Significance of Maldives for India?

Maldives holds enormous significance for India. The Significance of Maldives for India is mentioned below-

Geo-Economic Significance- Maldives is strategically located at the crossroads of several important trade routes that run through the Indian Ocean. **50% of India's external trade** and **80% of India's energy** imports **transit through** the Sea lanes of communication (SLOCs) in the vicinity of the **Maldives**.

Geo-Political Significance- Maldives has been a partner of India in many regional groupings. Maldives is a member of the **Colombo Security Conclave (CSC)**, **Indian Ocean Rim Association (IORA)**, **SAARC**, **SASEC** and **SAGAR** initiative of India. Maldives supports India's permanent membership of UNSC.

Security Significance- For India, Maldives is the **first line of defence** against terrorism, piracy on the high seas, drug trafficking, narcotics, and other maritime crime. Maldives geographical location makes it a '**toll gate**' between the choke points of the western Indian Ocean (Gulf of Aden and the Strait of Hormuz) and the eastern Indian Ocean (Strait of Malacca).

Indian Diaspora Significance- There is a sizeable Indian Diaspora in Maldives. Numerous **Indians are employed** in Maldives' education, medical care systems, tourism and hospitality sector.

What have been the areas of Co-operation between India and Maldives?

India has been a major partner of Maldives in its development journey. The major areas of cooperation between India and Maldives are mentioned below-

Economic Cooperation- The economic co-operation between India and Maldives is a major pillar of cooperation between India and Maldives. Mentioned below are some of the economic cooperation pillars-

- (a) **\$500 million** in grants and financing to support maritime connectivity.
- (b) **\$ 800-million line of credit** from the Export-Import Bank of India
- (c) India is Maldives' **2nd largest trading partner**.
- (d) Maldives is an important tourist destination for many Indians. Tourism is the backbone of Maldives economy.

Infrastructure Cooperation- Development of sustainable infrastructure in Maldives is one of the main goals of India. India is developing many infrastructure projects in Maldives some of which are mentioned below-

- (a) India is developing the **Greater Male Connectivity Project**- one the largest project infrastructure project in Maldives. The project aims to **connect Male to Villingili, Gulhifalhu and Thilafushi islands** through a series of bridges, causeways and roads. The project is crucial for the proposed Gulhifalhu Port. It will be a **major catalyst for the Maldivian economy in the future** through jobs and economic activity.
- (b) India is undertaking Airport Redevelopment Project at the **Hanimaadhoo International Airport**.
- (c) India is undertaking the development of **strategic harbour projects like Uthuru Thila Falhu Project(UTF)**. It will serve as a harbour for the coast guard of the Maldives National Defence Force
- (d) India has also undertaken the design and construction of **61 police infrastructures across Maldives**. This will contribute to improved access to policing and will ensure the safety and security of the communities in the islands.

Military and Security Cooperation- Maldives relies heavily on trilateral maritime security cooperation with India and Sri Lanka. Hence securing the maritime borders of Maldives is one of the foremost priorities of Indian Government. The major areas of Military and security co-operation are as follows-

- (a) India and Maldives co-operate in **maritime security**, maritime domain awareness and Humanitarian Assistance and Disaster Relief (HADR) operations.
- (b) India has donated Landing Assault Craft and 24 Utility Vehicles to Maldives in order to bolster maritime security.
- (c) India has signed a comprehensive Action Plan for Defence in April 2016 to consolidate India-Maldives defence partnership.

(d) India provides the largest number of training opportunities for Maldivian National Defence Force (MNDf), meeting around 70% of their defence training requirements.

(e) India and Maldives conduct many security Joint Exercises like “Ekuverin”, “Dosti”, “Ekatha” and “Operation Shield”.

(f) India launched the Operation Cactus in 1988 to help the government of Maldives in the neutralizing the coup attempt.

Humanitarian Assistance Cooperation- India has always lent a helping hand to Maldives in humanitarian assistance. Mentioned below are some of the examples of humanitarian assistance

(a) India has signed an MoU with Maldives for **High Impact Community Development Projects (HICDPs)** in 2019. A number of socio-economic development projects are planned to be implemented in Maldives through these projects.

(b) India has provided **100,000 Covishield vaccines to Maldives** in January 2021 during the peak of the pandemic. Through **Operation Sanjeevani**, India supplied 6.2 tonnes of essential medicines to Maldives in the fight against COVID 19. India has handed over **two sea ambulances** to the Ministry of Defence of Maldives.

(c) India provided assistance to Maldives during recovery efforts after the 2004 Tsunami. India also helped address the shortage of drinking water in Maldives in 2014 through **Operation Neer**.

What are the Challenges in India-Maldives Relations?

India-Maldives relations suffer from a lot of challenges. Some of which are mentioned below-

Political Challenges- The president elect Dr. Mohamed Muizzu and the former president Abdulla Yameen have been vocal advocates in the ‘**India Out**’ Campaign. Both leaders are opposed to India’s military presence in Maldives. Since they will be wielding power in Maldives, it will become a major challenge for India.

Radicalisation- A large number of Maldivian citizens had joined violent extremist organisations such as the **Islamic State (IS)**. There has been a steady **rise in recruits joining jihadi groups in Pakistan** over the last decade. There is now a greater risk that terrorist organisations based in **Pakistan will use Maldives as a staging ground for attacks on India** and Indian assets.

Growing Chinese Influence- China has enhanced its influence in Maldives. Maldives is an essential ‘pearl’ in China’s ‘String of Pearls’ initiative in South Asia. With the **return of pro-chinese government in Maldives**, India’s diplomatic space will reduce in the region.

Climate Change- As both India and Maldives are low-lying island nations, they are vulnerable to the effects of climate change, including rising sea levels and marine heatwaves. Maldives faces the risk of submergence.

What Should be the Way forward for India-Maldives Relations?

Engage with the newly elected government- India must engage with the newly elected government of Maldives and address its concerns. India must convey that the projects being undertaken are for the general good of the people of Maldives. Ex- The **redevelopment project at Hanimadhoo** will improve tourist inflow as both the runway and terminal capacity will be increased. Tourism is the mainstay of Maldives economy.

Increase the development assistance- India should increase development assistance to Maldives. India should target projects that have **larger impact on general population of Maldives**.

This will enhance India's goodwill among the people of Maldives. It will address concerns that have led to 'India Out' Campaigns.

Timely Completion of Infrastructure Projects- Timely completion of infrastructure projects being undertaken by India like the **Greater Male Connectivity Project (GMCP)** will offer a credible and lucrative alternatives to Chinese projects.

Target Youth Employment- India's **High Impact Community Development Projects (HICPs)** in Maldives must include projects that aim to **improve employability** and foster entrepreneurship among the youth. This will help in countering the threats of radicalisation and extremism emanating from the soil.

The newly elected regime of Maldives must understand that China's entry in Maldives is solely to advance its own gains. A strong relationship with India will be to Maldives's benefit.

Read More- [Indian Express](#)

UPSC Syllabus- India and neighbourhood relations

[Yojana October 2023 Summary] Road Infrastructure In India- Explained Pointwise

Context

Road infrastructure in India has been an important driver of economic development and social inclusion. In the recent three decades, the emphasis of various governments has been on improving the road infrastructure in India. Increase of total **road-length** and improvement of **road-quality** are the two pillars of improved road infrastructure. Adoption of various organisational and technological innovations have helped India in improving the road infrastructure. India now has the **second-longest road length** in the world after USA.

What is the progress of India in improvement of road Infrastructure over decades?

India has tremendously improved its road infrastructure over decades. Since, India now has the second largest road length in the world, it is pertinent to look at the **progress over decades**.

Year	Road Length	Observation
1951	4 lakh Km	In the 40 Years between 1991 and 1951, India added 19 lakh km of roads.
1991	23 lakh Km	
2019	63 lakh Km	However between 1991 and 2019, India added 40 lakh Km of road. India has made rapid progress during this period in road infrastructure.

Also, the table mentioned below shows the **present six fold classification of Indian roads** and their compounded annual growth rate (CAGR) in percentage terms since 1991.

National Highways (NH)	State Highways (SH)	District Roads	Rural Roads	Urban Roads	Project Roads	Total
1,32,499	1,79,535	6,12,778	45,22,228	5,41,544	3,43,163	63,31,757
5.02	1.24	0.66	4.67	3.87	1.77	3.64

Source-Yojana

Observations on Present Road Infrastructure in India

- *Rural roads constitute over 70% of the road infrastructure in India
- *The CAGR of NH has been the highest since 1991 followed by rural roads.
- *Many SH have been reclassified as NH for upgradation.

What are the various steps undertaken for improvement of Road Infrastructure in India?

Improvement of Road Infrastructure has been achieved by the following organisational and technological innovations, which have been taken over decades-

Organisational Innovations

Delinking Road Development and Direct Employment- Until 1991 (liberalisation), the road development was connected with direct labour employment. The **Nagpur Plan** (1943-1963), **Bombay Plan** (1961-1981) and the **Lucknow Plan** (1981-2001), focused on using the road development projects as a means of direct employment generation. However **post liberalisation**, there has been increase in the use of capital-intensive high-tech road making equipments. This led to increase in both quantity and quality of roads in India.

Creation of National Highways Authority of India (NHAI)- In **February 1995**, NHAI became **operational** to directly drive the development of National Highways (NH). Prior to the formation of NHAI, the NH development and maintenance was the responsibility of the states with funding from the centre. There was lowing carrying capacity of NHs (**2% of NHs carried 40% of the traffic**). However after NHAI formation, NH length have registered the largest compounded annual growth Rate (CAGR) since 1991.

Creation of State-level Road Development Corporations- With the creation of NHAI, many states also brought changes in their organisational structure for road development. They **de linked the state expressway projects from their Public Works Department (PWD)**. Maharashtra was the first state to set up the **Maharashtra State Road Development Corporation Limited (MSRDCL)**. Uttar Pradesh (UP) is developing its expressways through these corporations.

National Highways Development Project (NHDP)- NHDP was started in 1998. NHDP consequently grew to seven phases involving a **total length of 49,260 km**. In 2018, most of the NHDP has been completed and the remaining works were subsumed under the larger Bharatmala Pariyojana.

New Focussed organisations apart from NHAI- Apart from NHAI, new organisations have been created for better focus on road development. **National Highways and Infrastructure Development Corporation Limited (NHIDCL)** was incorporated in 2014, to carry out road development projects in the border areas. **National Highways Logistics Management Limited (NHLML)** was set up in 2020 for the first/last mile port connectivity projects.

Focus on Rural Roads through Pradhan Mantri Gram Sadak Yojana (PMGSY)- **PMGSY** has been one of the **most successful projects** in India. The success of PMGSY has also encouraged

projects like the Mukhya Mantri Gram Sadak Yojana (MMGSY) in many states. **The reasons for success of PMGSY are**– selection of Villages on objective criteria, independent agencies like World Bank doing the over sight and housing the project under Ministry of Rural Development (demand side) rather than MoRTH (supply side). Because of interventions like PMGSY, rural roads today constitute over 70% of the road infrastructure of the country.

Public-Private Partnerships (PPP) and Viability Gap Funding (VGF)- PPP investments were increased through the introduction of financial/project models like the Viability Gap Funding (VGF). These models were introduced **to reduce the financial risks of private players** in road development.

Evolution of the Model Concession Agreement (MCA)- The first MCA for the road sector was brought in 2000. It has evolved over time for **better allocation of risk** between the PPP player and the development authorities.

New Contracting models and Asset Monetisation- Apart from the Classical tendering through the Engineering, Procurement and Construction (EPC) or the Build, Operate and Transfer (BOT), several new contracting models have emerged. **Hybrid Annuity Model (HAM) and Toll, Operate and Transfer (TOT)** are being used extensively for road development. The **Infrastructure Investment Trusts (InVITs)** have been operationalised to enable asset monetisation of built roads.

Technological Innovations

Introduction of new Road Making Technologies- With the roll out of the NHDP, the import of the road-making equipment was brought under the **open general licence** to ease their procurement process. Further, steps have been taken for **enhanced Technology Transfer** in the road making equipments. New and environmentally sustainable materials like **fly ash, steel slag** etc. are being used in road development.

Introduction of Electronic Toll Collection (ETC)- Electronic Toll Collection (ETC) has been introduced to **reduce the toll collection time** and traffic congestions at the toll Plazas.

Read More- [Forum IAS](#)

What are the advantages of developed road infrastructure in India?

Listed below are the major advantages of developed road infrastructure-

Transportation of people and goods- Roads are the primary mode of transportation in India. **90% of the passenger traffic** and **60% of the freight traffic** are carried by roads.

Promotes the development of trade and commerce- Properly developed roads promote the development of trade and commerce by **facilitating the movement of goods** and services across the country.

Increase in employment opportunities- The construction and maintenance of roads provide **employment to millions of people** in India. According to NHA report, the construction of highways and expressways has created around **55,000 direct jobs** and **1,00,000 indirect jobs** per 1,000 kms of road construction.

Facilitation of socio-economic development- The development of roads in rural and remote areas is crucial for promoting overall socio-economic development. According to the Ministry of

Rural Development, around 91% of rural areas in India are connected by roads which enables them to access essential services like healthcare, education and markets.

What are the Challenges with the Road Infrastructure in India?

Lack of Focus on Safety Standards- Unsafe road designs and construction practices are the biggest causes of India's unsafe roads. Lack of buffer lanes, low number of crash barriers, lack of scientific signage are some of the examples of these unsafe practices. India's unsafe roads kill the maximum number of people in any country.

Challenges with Land Acquisition for road projects- In a study conducted by NHAI on 106 projects, worth over ₹1.5 billion, facing implementation delays, issues pertaining to land acquisition were identified as one of the important causes for the delay in almost 50 percent of the projects. Also, the government's burden to acquire land has risen after the passage of the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013, that mandates it to pay four times the market value of acquired land in rural areas and two times in urban areas.

Issues with India's Urban Roads- India's urban roads have not been getting enough attention as the rural roads have got in recent times. There are coordination issues with urban Public Transport, lack of parking spaces and heavy traffic congestions. India's urban roads lead to wastage of time, poor last mile connectivity and poor urban goods movement.

Disputes with the PPP Players- Contractual disputes between the development authority and the PPP Player also considerably slows down the road development projects. Untimely release of funds financially hurt the PPP players to execute the road development projects.

Lack of use of Origin to Destination (OD) Data- There is lack of use of Origin to Destination (OD) traffic flow data while planning the road development projects. The OD data must be integrated with the Electronic Toll Collection (ETC).

What should be the way forward ?

Although India has made substantial progress in the road infrastructure sector, we are still way behind in achieving a fully developed road infrastructure in India. The following measures need to be undertaken to ensure further development of road infrastructure in India.

Improvement of land Acquisition process- Streamlining the land acquisition process, ensuring transparency and providing adequate compensation to landowners will help in expediting the road development projects and reducing their costs.

Ensuring safe road designs- There is need to ensure that the road designs are compatible with the Indian Roads Congress Standards. Also the material testing facilities must be enhanced at the construction site. Proper construction of the roads must be improved.

Use of Technology- Use of technologies like sensors to monitor traffic flows, intelligent transport systems and smart road infrastructure will improve the road safety and efficiency.

Focus on Road Maintenance- The government needs to prioritise regular maintenance of roads like resurfacing, pothole filling and drainage system maintenance.

Increase investment- The government must explore options like **road bonds, green bonds for highway development**. The sector should be made financially lucrative to draw maximum FDI inflows.

Incorporation of lane capacity measurement while measuring road capacity- As more and more multiple-lane roads get constructed, it is important to focus on the **measurement of lane Kilometers rather than road kilometres**. This will provide a true picture of India's road capacity.

UPSC Syllabus- Infrastructure energy, ports, roads, airports, railways etc.

Main Source- Yojana October 2023

Read more- [Indian Express](#)

Abortion Laws In India- Explained Pointwise

News and Context

Abortion laws in India are in focus once again, after the **Supreme Court declined a married woman's plea to abort (medically terminate) her 26-week pregnancy**. The woman had approached the Supreme Court, seeking abortion, as she was already a mother of two and was **suffering from post-partum depression** after the birth of her second child. The woman had submitted that she was physically, emotionally, mentally, financially and medically unable to carry, deliver or raise another child.

What is abortion and what is the debate around it?

Abortion- An abortion is a medical procedure to terminate a pregnancy. It uses medication or a surgical procedure to end the pregnancy. However, this medical procedure has a 'Pro-Choice' vs 'Pro-Life' surrounding it.

Debate surrounding Abortion

Pro-Choice- Support abortion rights of women. Right of women to **'bodily autonomy'** is paramount.

Pro-Life- Oppose abortion rights of women. **'Right to life'** of the foetus is paramount.

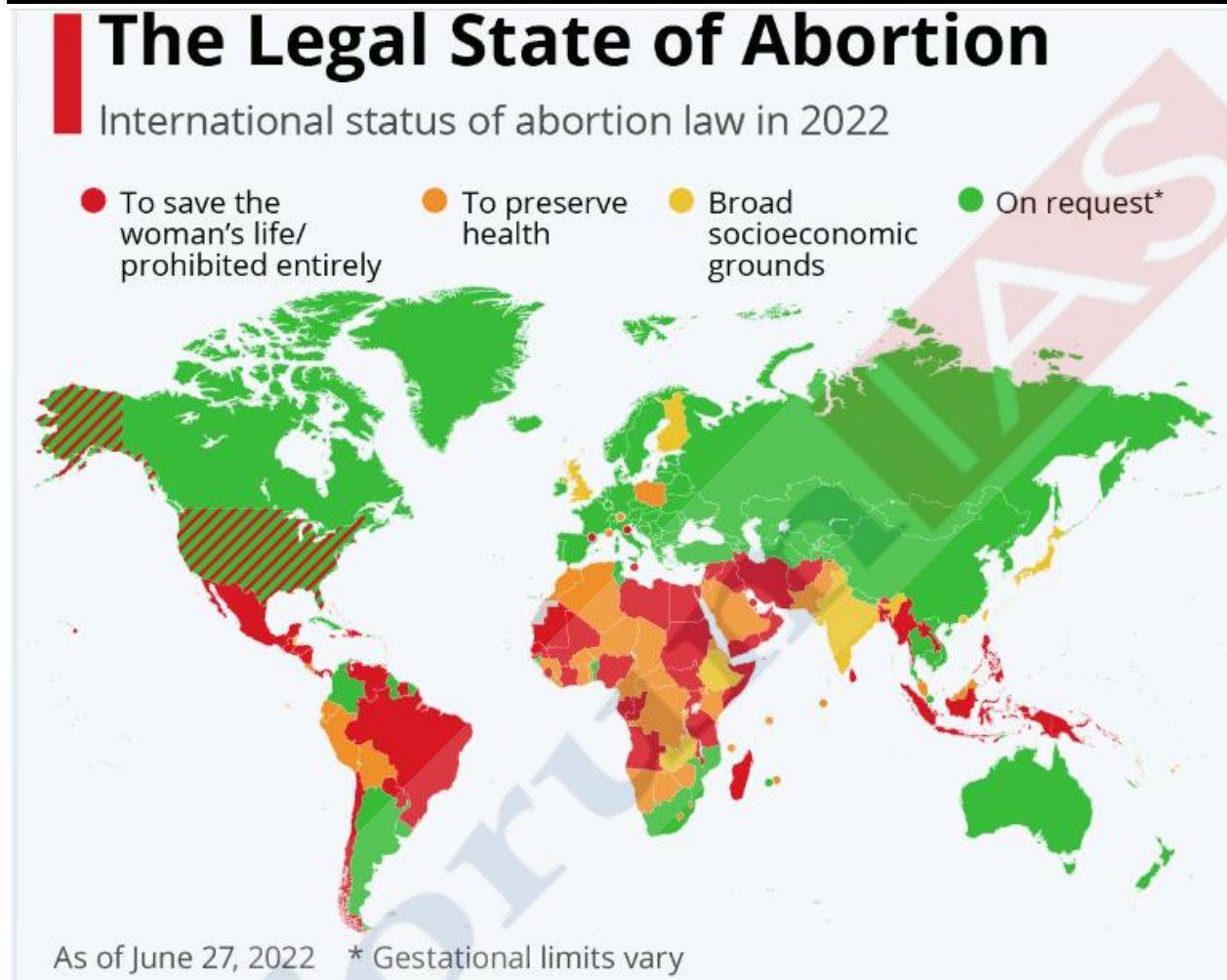
What is the Current status of legislation on abortion in India and around the globe?

India has taken the Pro-Choice approach to abortion and has legalised it. India took the first step to legalise abortion by enacting **The Medical Termination of Pregnancy Act, 1971 (MTP Act 1971)** on the recommendations of **Shantilal Committee**. The MTP Act has been improved through subsequent amendments latest being in 2021 (**MTP Amendment Act 2021**). It has been brought in line with modern progressive ideas regarding women's reproductive rights and bodily autonomy.

However **while India has progressed** in the abortion rights domain, **US has regressed** in the abortion rights domain. US SC pioneered the abortion rights movement by giving the **Roe vs Wade Judgement (1973)**. This judgement gave **women in America the constitutional right to have an abortion** before the foetus is viable outside the womb or before the 24-28 week mark. However, the US supreme has **recently overturned the judgement** and removed abortion from the

constitutional right. US supreme court has left it to the individual US states to frame their own abortion laws.

Map depicting the status of abortion in all the countries of the World



Source- Centre for Reproductive rights

India has tried to address the lacunae in the MTP Act 1971 and brought amendments to the Act in 2021.

What are the differences between the MTP Act 1971 and the MTP Amendment Act 2021?

Listed below in the tabular format is the difference between the MTP Act 1971 and its amended Act of 2021.

Criterion	The MTP Act 1971	The MTP Amendment Act 2021
Contraceptive Failure	Only applied to married Woman	Unmarried Women are also covered
Gestational limit for termination	20 Weeks.	Increased from 20 Weeks to 24 weeks but only for rape survivors, minors, physically disabled, marital status change, mental retardation, disaster

		stricken, fetal abnormality. Beyond 24 weeks, only for 'substantial fetal abnormalities'.
Registered Medical Practitioners (RMP) approval	Till 12 Weeks- 1 RMP 12-20 Weeks- 2 RMP	Till 20 Weeks- 1 RMP 20-24 weeks- 2 RMP Beyond 24 weeks- State-Level Medical Board
Privacy	Not Mentioned	Protects the confidentiality of data related to termination. Any violation would attract jail term.

Read More- [Forum IAS](#)

What is the significance of the amended MTP Act 2021?

'Bodily Autonomy' to Vulnerable pregnant Women- The amended Act has enhanced the upper gestation limit from 20 to 24 weeks for special categories of Vulnerable pregnant women including **rape survivors**. This will help in preventing the socio-economic and psychological impact of **unwanted pregnancies**. Vulnerable pregnant women have been granted more 'bodily autonomy' to decide on their pregnancy.

Ease in process of termination of pregnancy- The Amended Act has eased the process of termination of pregnancy. Now for the termination of pregnancy **up to 20 weeks**, the opinion of **only 1 registered Medical Practitioner** is required.

Lowering the burden on courts- The Act has **removed the limit of 24 weeks** for termination of pregnancy in case of **substantial fetal abnormalities**. Now the substantial fetal abnormalities abortion can be allowed by the newly established **State level Medical Board** even after 24 weeks. Thus, it may ease the burden of writ petition on courts, for seeking abortion beyond the permitted period.

Privacy and confidentiality- According to the Act, **names of women** whose pregnancy has been terminated will be kept **confidential**. This will ensure dignity, privacy and confidentiality of women.

De-stigmatisation of relations outside marriage- The Act allows for termination of pregnancy due to **contraceptive-failure condition for unmarried woman**. Hence, it de-stigmatises pregnancies outside marriage.

Reduction in Maternal Deaths and morbidities- The simplification of process of abortion will reduce the maternal deaths due to unsafe abortions. India, currently registers around **80,000 deaths due to illegal abortions**.

What are the challenges associated with MTP Act 2021 to achieve safe abortion in India?

Does not provide right for "at-will abortion"- The MTP Act does not provide for 'at-will abortion'. SC in the landmark case of **X vs Principal Secretary, Health and Family Welfare Department, Government of NCT**, has acknowledged that the MTP Act is a **provider-centric legislation**, where the opinion of the Registered Medical Practitioner (RMP) becomes **"decisive and final"**.

No recourse for rape victims and other vulnerable pregnant women after 24 Weeks-

According to the act, **rape victims and other vulnerable pregnant women (mental illness, minors etc.) cannot approach the Medical Board** for the termination of pregnancies beyond 24 weeks. Medical board can be approached in case of 'substantial foetal abnormalities' only. Thus writ petitions become the only option for these women.

No provision of time frame for the medical board decision- The act does not provide for the time frame within which the **Medical board must make its decision**. Delays by the medical board lead to further complications for women.

'Special categories of women given relaxation' not fully representative- Special categories of women whose gestation limit has been increased from 20 to 24 weeks is not fully representative. It **does not include** women suffering from **financial crisis** or women suffering from **lactational amenorrhea or menopause**.

Fear of persecution- Fear of criminal persecution still exists among the registered medical practitioners, which drive women either to unsafe abortions or to courts.

Low number of registered medical practitioners- According to the act only Registered medical practitioners having **experience or training in gynaecology or obstetrics** can perform the abortion. But according to NH&FS (2015-16) data, **only 53% of abortions are performed by a registered medical doctor**, the rest are conducted by a nurse, midwives, family members. Also there is 75% shortage of such doctors in community health centres in rural areas. This results in more unsafe abortions.

What should be the way forward for abortion laws in India?

Filing of cases for abortion rights in the Indian courts is still a regular feature. India must adopt the following recommendations to achieve safe abortion conditions.

Follow the WHO guidelines for abortion- WHO has recommended that **States should fully decriminalise abortion**, remove **grounds-based regulation and gestational limits to abortion**. This will ensure non-discriminatory and equal abortion care to all.

Shift the power of abortion from the doctor to the woman seeking an abortion- SC in **Justice K.S. Puttaswamy (Retd.) vs. the Union Of India And Others (2017)**, recognized the right of women to make reproductive choices, as **a fundamental right under Article 21** of the Indian Constitution. Hence the conditionalities in the act must be removed to ensure women are able to exercise their reproductive choices right.

Increasing the ambit of the MTP Act- The ambit of the act must be increased by including transgenders and other vulnerable women like those suffering from **financial constraints, lactational amenorrhea or menopause**.

Creation of cadre of certified medical practitioners- India needs to create a cadre of certified medical practitioners including **ASHA, ANM workers** in its health system who can carry out institutional abortions. This will reduce the problem of unsafe abortions in India.

Women and girls should have access to abortion care that is safe, respectful and non-discriminatory in nature. **Access to abortion care is fundamental** in meeting the Sustainable Development Goals (SDGs) relating to good health and well-being (SDG3) and gender equality (SDG5).

Read More- [The Indian Express](#)

UPSC Syllabus-

Mechanisms, Laws, Institutions and Bodies constituted for the Protection and Betterment of these Vulnerable Sections.

Issues related to Women

Same Sex Marriage Verdict- Implications- Explained Pointwise

Introduction

The five-judge Constitutional Bench of the Supreme Court headed by Chief Justice of India D Y Chandrachud has **refused to grant legal status to same-sex marriage in India**. There were two views in the judgement on some of the key questions in the case. The judgement given by Justices S Ravindra Bhat, Hima Kohli, and P S Narasimha formed the majority. The judgement of CJI Chandrachud and Justice Sanjay Kishan Kaul formed the minority.

Highlights of the Judgement

- 1.Right to marriage is not a fundamental right.
- 2.Rejection of the demands of the petitioners for the re-interpretation of Special Marriage Act (SMA) 1954 to include the word “spouses” in place of “man and woman”.
- 3.CARA provisions which prohibit queer couples from adoption are discriminatory. But these provisions cannot be struck down by the judiciary. Legislature and executive to take the necessary steps.
- 4.Committee chaired by the Cabinet Secretary should be constituted to set out the rights which would be available to queer couples in civil unions.

What is the detailed SC judgement on same-sex marriage?

In the same-sex marriage case, four (4) key questions were framed. While the majority and minority judgements agreed in their verdict on some questions, there were disagreements on other questions.

Key Question	Majority view (3 Judges)
<p>The fundamental right to marry</p> <p>The petitioners wanted the SC to declare marriage as a fundamental right as the SC declared Privacy as a fundamental right in 2017.</p>	
<p>Re-Interpretation of Special Marriage Act (SMA) 1954</p> <p>The petitioners had asked the SC to interpret the word ‘marriage’ in SMA. They wanted marriage to be defined as between “spouses” instead of “man and woman”. The petitioners had also asked for striking down provisions of the SMA that are gender-restrictive.</p>	

<p>Queer couples' right to adopt a child</p> <p>The petitioners had argued that the guidelines of the Central Adoption Resource Authority (CARA), which does not allow unmarried couples to jointly adopt children, is discriminatory against queer couples as they cannot legally marry.</p>	<p>Majority view- Agreed with the minority view that CARA provisions are discriminatory. But these provisions cannot be struck down by the judiciary.</p> <p>Rationale for not striking down by the judicial pen- The legislature and executive only should remove these discriminatory provisions.</p>
<p>Civil unions for queer couples</p> <p>Civil Union was considered as the halfway approach before granting complete marriage rights. US Supreme Court had adopted the same approach of recognising civil unions first before granting complete marriage rights.</p> <p>However the petitioners argued that civil unions are not an equal alternative to the legal and social institution of marriage. The petitioners argued that relegating non-heterosexual relationships to civil unions would send the queer community a message that their relationships are inferior to those of heterosexual couples</p>	<p>Majority View- Agreed with the minority view. But judiciary should not prescribe civil unions as a 'choice' to queer couples.</p> <p>The majority opinion said that the state (legislature, executive) should facilitate this choice and that too, only for those who wish to exercise it.</p>

What arguments were put in favour of legalisation of same sex marriage in India?

Mentioned below are the arguments that were put in favour of legalisation of Same Sex Marriage in India-

Provides Equality to Homosexuals- Legalisation of same-sex marriages is crucial in promoting equality and non-discrimination. **Articles 14 and 15** of the constitution prohibits discrimination on the basis of **sex**. The Supreme Court in the **Navtej Singh Johar case (2018)**, interpreted "sex" to include "sexual orientation". Denial of the right to marriage to the same-sex couples, is discrimination against them based on their sexual orientation.

Ensures Right to privacy- The Supreme Court in the **K.S. Puttaswamy case (2017)**, held the right to privacy as a fundamental right (Under Art 21). The **right to privacy** encompasses the ability to make choices regarding one's body and intimate relationships. Legalisation of same sex marriage would ensure the homosexual couple's right to privacy.

Provides Legal protection- Legalisation of same sex marriage will provide legal protection to homosexual couples under **laws** that guarantee rights such as **wages, gratuities, adoption, surrogacy, inheritance, joint ownership of property, and healthcare**.

Enlargement of Human Rights- Same-sex marriage is a human rights issue. The **United Nations** has recognised the importance of LGBT (lesbian, gay, bisexual, and transgender) rights and has called for the protection of the human rights of LGBT individuals, including their right to marry.

Significance to the Homosexual Relationship- The legalisation of same-sex marriage will provide the same-sex relationships a sense of significance, **direction, and identity**.

Promotes Social acceptance- Legalisation of same-sex marriages would promote social acceptance of LGBT individuals and relationships. It would help to reduce social discrimination and stigma.

Transformative constitutionalism and progressive realisation of rights- The legalisation of same-sex marriage will be a step further in the domain of transformative constitutionalism and progressive realisation of the minority rights. SC of India invoked the aforesaid principles of transformative constitutionalism in the **Navtej Singh Johar Case (2018)** which **invalidated Sec. 377 of the IPC**.

Granting marriage equality does not require unprecedented move from SC- Both the **basic structure doctrine** and the **right to privacy** verdict involved far more substantial and extensive cases of interpretation of the constitution by the SC. Legalisation of same-sex marriage can be done within that extensive interpretation framework evolved by SC.

Homosexuality not limited to urban and elite areas- The ones who argue for same sex marriage, claim that homosexuality is not just limited to urban areas. A major percentage of homosexuals reside in rural areas and town. According to them, **homosexuals constitute around 7-8%** of the country's population.

Marriage is an evolving institution- According to the proponents of same-sex marriage, marriage is an evolving institution according to the prevalent social values of the times. **Gandharva marriages** based on mutual consent, **Daiva Marriages** where girl was married to a teacher and **Arsha marriages** where women were married to rishis, have all been the result of the prevalent social values of those times. The demand of modern times is same sex marriage. Hence it should be allowed.

Global Acceptance of same sex marriage- Same-sex marriage is legal in 34 countries around the world. Denial of this right to individuals in a democratic society goes against the global principles.

Right to Marry as a Human Right- Under the **UDHR, 1948**, the **right to marry is a human right**. **Article 16** provides that, "Men and women of full age, without any limitation due to race, nationality or religion, have the right to marry and to found a family."

Logical next-step after Decriminalisation of Section 377- It is logical to assume that in a situation when a couple are having a physical relationship, they may progress to a long-term relationship, including that of marriage.



It's a 21st century feeling

33 countries recognise same-sex marriage and civil unions

The **Netherlands** was the first, in **2001**

Momentum is growing — **2022** has seen **Chile, Slovenia, Switzerland** and **Mexico** join the club

In November, the US Senate passed a same-sex marriage protection bill with bipartisan support — **70% of Americans** now support same-sex marriage

Also in November, **Singapore's parliament** decriminalised sex between men. Its **Section 377A** grew especially untenable after Indian SC read down Section 377

Japan is the only G7 country that does not allow same-sex marriage. But recently a Tokyo district court underlined the infringement of the human rights of same-sex families

Taiwan is the only Asian country to have legalised same-sex marriage. Its parliament approved the landmark decision in 2019. Its constitutional court struck down the Civil Code's definition of marriage as being only between a man and a woman in 2017

Source- TOI

What arguments were put against the legalisation of same sex marriage in India?

However, the central government and various other advocates put several arguments against the legalisation of same sex marriage in India. These are mentioned below-

Against religious and cultural beliefs- In India, aspects of marriage, succession and adoption are governed by religious personal laws. These marriage laws and customs are for **heterosexual couples only**. Hence, legalisation of same-sex marriage goes against the Indian religious and cultural beliefs.

Legal complications- Legalisation of same-sex marriages could lead to legal complications in issues related to **adoption, child custody, inheritance and taxes**.

Children's rights- The opponents have argued that **children are better off being raised by heterosexual parents**. In Indian society, where acceptance of the LGBTQIA+ community is not universal, it can lead to **societal stigma, discrimination** and affect the mental health of adopted children of LGBTQIA+ couples.

Marriage is a matter of public policy and must be decided by the parliament- Marriage is a matter of public policy and must be decided by the Parliament and the executive alone. The

legalisation of same sex marriage, would also require changes in the age of consent, prohibition of bigamy, judicial and divorce acts.

Can create social unrest- Same-sex marriage is not widely accepted in Indian society. Legalisation of homosexual marriage could create social unrest, and disrupt social norms and values.

Urban-Elitist demand- The demand for same-sex marriage is only an urban-elitist demand. It is not the demand of the rural and semi urban areas.

Against the natural order of things- Some people argue that the primary purpose of marriage is procreation, and that same-sex couples cannot have biological children. Therefore, they believe that same-sex marriage should not be allowed because it goes against the natural order of things.

What should be the way forward for the same-sex couples in India?

The same-sex couples have been disappointed the verdict of SC which declined to grant legal status to same sex couples. It has left it on the legislature and executive to grant legal status to same-sex couples. However, the following steps must be taken in the meantime-

Centre must immediately form the committee under cabinet secretary- As directed by the SC, the centre must immediately form the committee under cabinet secretary to provide civil union rights and other rights like inheritance, adoption etc. to homosexual couples.

Gender just family laws- The legislature must improve Indian family law to make it more inclusive, gender-just and non-discriminatory.

Raise awareness- The purpose of awareness campaigns is to promote equality and acceptance of all sexual orientations and expand public opinion about the LGBTQIA+ community.

Dialogue and engagement- Engaging in a dialogue with religious leaders and communities can help bridge the gap between traditional beliefs and modern attitudes towards same-sex relationships. The engagement of queer couples with the politicians at the local, state and national level must be stepped up.

Govt must aim for Legal reforms- Govt must aim to make amendments in the Special Marriage Act, 1954 so that the demands of the same-sex couples are fulfilled at the earliest. The legislature must also try to fulfill the long standing demands of horizontal reservations for transgenders, anti-discrimination laws and equal access to marriage.

What are the past developments regarding the recognition of LGBTQI rights in India?

Section 377 IPC criminalised sex between non-heterosexual couples punishable with 10 years imprisonment. In 2009, the Delhi High Court declared Section 377 as unconstitutional in Naz Foundation Case.

This was set aside in Suresh Kumar Koushal Case by the Supreme Court in 2013, but ultimately upheld in Navtej Singh Johar Case in 2018.

The Court had also held in the NALSA Judgment (2014) that persons are entitled to identify their own gender. They may be born as males but if they want to identify as females or transgenders, they are entitled to do so.

The **Transgender Persons (Protection of Rights) Act, 2019** was passed by Parliament which provides the procedure for changing one's gender and protection against discrimination in diverse establishments, private or state.

Read More- [The Hindu](#), [The Indian Express](#)

UPSC Syllabus-

1. Structure, Organization and Functioning of the Executive and the Judiciary.
2. Mechanisms, Laws, Institutions and Bodies constituted for the Protection and Betterment of these Vulnerable Sections.
3. Salient features of Indian Society, Diversity of India and Social empowerment

[Kurukshetra October 2023 Summary]- Crop Residue Management In India- Challenges and Opportunities- Explained Pointwise

Introduction

Ecologically sustainable and environmentally safe management of **crop residue (agricultural waste)** is one of the major challenges in India. Harvesting, threshing and primary processing of crops leave behind a variety of plant materials that need safe disposal and recycling. The focus of government in recent times has been on effective management of crop residue.

What is crop residue and what is its utility?

Crop residue are the agricultural waste that are left in the fields after the harvesting and threshing process. **Stubbles, stalks, stover, husk, bran, bagasse** and **molasses** are generally classified under the category of crop residue (CR) in the Indian context. These crop residues were **once thought to be waste**. But these are **now regarded** as an **important natural resource** due to their versatile utility.

Utility of crop residue

1. Crop residues are primarily used as bedding material for livestock, animal feed, soil mulching, biogas generation, bio-manure and compost, thatching for rural homes, mushroom cultivation, biomass energy production, fuel for domestic and industrial use.
2. CR can be converted into a variety of value-added products such as papers, boards, eco-panels with the help of innovative technologies.

Crop residue problem in India (explained with Data)

Total crop residue(CR)	683 MT	* 2/3rds (67%) of CR are contributed by cereal crops (Rice generates the most CR followed by wheat). * 20% of CR are fibre crop residue (Cotton accounts 74% of fibre crop residue)
Recycled crop residue	500 MT	These residues are recycled in various sectors like industrial, domestic and livestock fodder.
Left over crop residue	183 MT	These residues are left without any single use. Nearly half of it is burned in fields across the

	states. Punjab, Haryana, and Uttar Pradesh are the states where maximum residue burning takes place.
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What are the problems caused by unscientific crop residue management?

Listed below are the problems that are caused by unscientific crop residue management in India-

Deterioration of soil health- According to a [report from Punjab Agricultural University](#), every year **0.824 million tonnes of NPK** (nitrogen, phosphorus, and potassium) **are lost** from the soil due to Crop Residue (CR) burning in agricultural fields. Heat generated from burning of CRs elevates soil temperatures, causing the death of beneficial soil organisms.

Increase in Greenhouse gas emissions- Burning of crop residue releases carbon dioxide, carbon monoxide, methane, sulphur oxide, nitrogen oxide gases. These gases are responsible for **aggravating** the global calamity of **climate change**.

Deleterious impact on human health- Burning of crop residue releases large amount of particulate matter (PM-2.5 and PM-10). These are **carcinogenic in nature** and could lead to various **airborne or lung diseases**. The burning of CRs also puts the lives of milk-producing animals in danger.

Why do farmers resort to unscientific crop residue management like stubble burning?

The reasons for unscientific crop residue management like stubble burning are mentioned below-

Paucity of time- Farmers face paucity of time **in clearing the paddy straws from the fields** before sowing wheat in the Rabi season.

False traditional belief- Farmers in this region have a **false traditional belief that burning crop residue will restore** nutrients back to the soil.

Shortage of on farm labours- In earlier times there was plentiful farm labour which helped farmers with manual harvesting, and no stubble was left in the field. But, of late, an acute shortage of labour prevails due to various socio-economic changes (**migration**) and employment guarantee schemes like **MGNREGA**. Hence the farmers find it easier to burn their stubble.

Non affordability and non inclination to invest in modern machines- Many rich farmers are not inclined to invest in modern crop residue management machines like **'Happy seeder'**, **'Super SMS attachment'**, **'rotavators'**, **'superseeder'** etc. Many small and marginal farmers face affordability issues.

What steps have been taken to prevent unscientific crop residue management in India?

National Green Tribunal (NGT) order 2015- The order **prohibited** agricultural residue burning in any part of the **NCT of Delhi** and the states of **Punjab, Rajasthan, Uttar Pradesh, and Haryana**. Any person or body that violates the directions of NGT has to pay environmental compensation which has to be collected by the concerned State Governments.

Framework of Commission for Air Quality Management (CAQM)- CAQM is a statutory body formed under the Commission for Air Quality Management in National Capital Region and Adjoining Areas, Act 2021. CAQM has provided a **framework to tackle the problem of air pollution due to stubble burning**. The State Governments of Punjab, National Capital Region (NCR) States

and the Government of National Capital Territory of Delhi (GNCTD) have developed detailed monitorable action plans based on this framework.

Crop Residue Management (CRM) scheme- This scheme was launched in 2018-19 with a multifaceted strategy. Under this scheme, financial assistance @50% is provided to the farmers for purchase of CRM machines like 'Happy seeder', 'Super SMS attachment', 'rotavators', 'superseeder' etc. Also financial assistance @80% is provided to cooperative societies, Farmer Producer Organisations and Panchayats for the establishment of Custom Hiring Centres in villages. These centres provide CRM machinery to farmers on rental basis at affordable rates.

Revised Guidelines for 'off-site' crop residue management- These guidelines have been issued for the 4 states of Punjab, Rajasthan, Uttar Pradesh, and Haryana. These guidelines aim to facilitate the alternative uses of crop residue and develop a paddy straw supply chain. The supply chain will help in making paddy straw available for various end uses such as power generation, heat generation, bio-CNG, bio-ethanol production.

Read More- [Forum IAS](#)

What are the alternative methods of crop residue management?

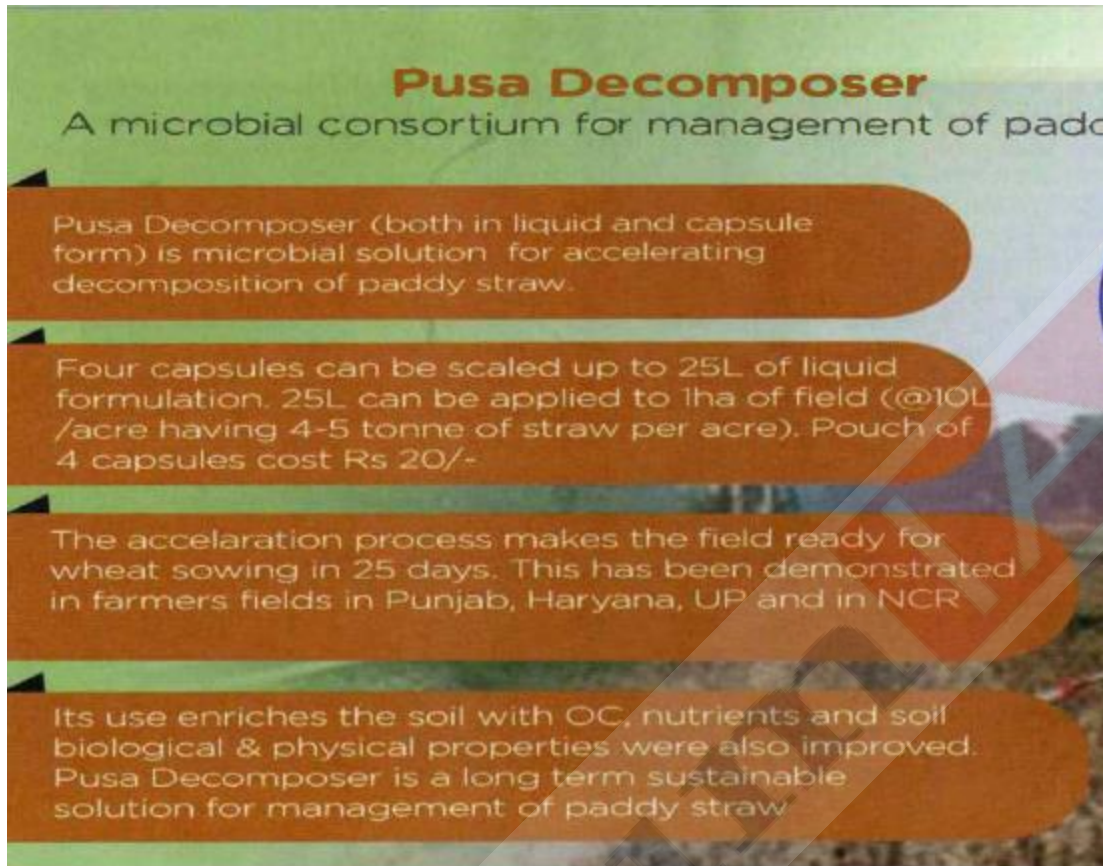
Mentioned below are the alternative methods of crop residue management which can be employed on large scale for effective crop residue management-

Pusa Decomposer Technology – Pusa Decomposer technology has been developed by The Indian Council of Agricultural Research (ICAR) to biologically decompose paddy stubble in the farm. It's a microbial solution available both in liquid and capsule form for accelerated decomposition of straw.

Biochar usage- Biochar which is a carbon-rich material can be made from left over rice straw. This can be used as a soil-amendment to enhance the soil fertility, carbon storage and water filtration.

Palletisation- Paddy straw can be dried and converted into pellets. These pellets can be mixed along with coal and can be used in thermal power plants and industries as fuel. This can save coal as well as reduce carbon emissions.

Happy Seeder- Happy Seeder, which is a tractor-mounted machine, cuts and lifts rice straw, sows wheat into the bare soil, and deposits the straw over the sown area as mulch. This can be used for stubble management instead of burning the stubble.



Source-

Yojana

What should be the way forward ?

Crop residue management remains a pertinent challenge in India. We must take the following measures to counter this challenge-

Revitalisation of Stubble Management through govt schemes- Schemes like the MGNREGA should be replicated for harvesting and composting stubble burning. This will help in regulation of crop residue management at the ground level.

Use of New and Improved seed varieties- Use of new and improved varieties of rice and wheat crop like Pusa Basmati-1509 and PR-126, mature quickly. The use of these varieties provides more time to the farmers to clear their stubble before the next sowing season.

Replication of Chhattisgarh Innovative Model- Chhattisgarh government has developed an innovative model which involves the setting up of Gauthans. Gauthans are five-acre plots owned by each village where unused stubble or parali is collected through parali daan (people's donations) and turned into organic fertiliser by mixing cow dung with natural enzymes. This model can be replicated at the national level.

Increasing the Farmer Awareness- Farmers need to be educated and informed about how stubble burning poses a threat to human life as well as the fertility of the soil. They should be encouraged to adopt eco-friendly technologies.

Read	More-	<u>Indian</u>	Express
UPSC Syllabus- Conservation, Environmental Pollution and Degradation, Environmental Impact Assessment.			

[Kurukshetra October 2023 Summary]- Leveraging Agroecological Approaches for Clean and Green Villages- Explained Pointwise

Introduction

Villages in an agrarian economy like India are the focus points for transforming the country's developmental journey. 'Clean and Green' Villages are the key to rural development and the transformation to Vikshit Bharat by 2047. Promotion of agroecological practices in sectors, such as agriculture, energy, forestry can play a pivotal role in developing 'Clean and Green' Villages.

What is 'Clean and Green' Village and what are the agroecological approaches to develop 'Clean and Green' Villages ?

'Clean and Green' Village- The Clean and Green Village is the fifth among the nine themes adopted by the Ministry of Panchayati Raj to transform rural ecosystems with the support of the Gram Panchayat Development Plan (GPDP).

Components of Clean and Green Village	
Clean	Green
1. Access to safe & adequate drinking water and sanitation services. 2. Low pollution and emission levels. 3. Clean air and water that enables people to lead healthy and productive lives.	1. Sustainable management of Village natural resources such as land and forests. 2. Ensuring food security while conserving the environment.



Source-Kurukshetra

Agro-ecological approach- Agro-ecological approach is an integrated approach that simultaneously applies ecological and social concepts, to the design and management of food and agricultural systems. It seeks to optimise the interactions between plants, animals, humans and environment.

What are the various agro-ecological practices being followed in India for 'Clean and Green' Village?

In India, the major agro-ecological practices and the schemes being followed are mentioned below-

1.'Organic and Natural Farming' Practices for Clean and Green Villages

Organic and natural farming practice are based on agroecological principles and exclude the use of synthetic or chemical inputs. Organic and natural farming provides chemical and pesticide-free food grains and crops, improves soil health, and reduces environmental pollution. Organic and natural farming contributes to 'Clean and Green' villages by helping in the conservation of natural resources, improving livelihoods, and providing safe and nutritious food.

Schemes and programmes for 'organic and natural farming'

Paramparagat Krishi Vikas Yojana (PKVY)	PMVY has been launched in 2015-16. It promotes organic farming through the creation of Cluster and Farmer Producer organisations.
Mission Organic Value Chain Development for North Eastern Region (MOVCDNER)	MOVCDNER is a Central Sector Scheme, a sub-mission under National Mission for Sustainable Agriculture (NMSA). It is being implemented in the states of Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura.
Bhartiya Prakratik Krishi Paddhati (BPKP)	BPKP launched in 2019-20 is a sub-scheme under PKVY. This scheme promotes natural farming in the country.
PM Programme for Restoration, Awareness Generation, Nourishment, and Amelioration of Mother-Earth (PM-PRANAM)	PM-PRANAM has been launched in 2003 by the Ministry of Chemicals and Fertilizers. This programme is initiated as a mass movement to save the health of Mother Earth by promoting sustainable and balanced use of fertilisers, adopting alternate fertilisers, promoting organic farming and implementing resource conservation technologies.

2.'Waste to Wealth- Biogas and organic manure' Practices for Clean and Green Villages

Biogas and organic manure are agroecological practices that convert agricultural, industrial, animal and municipal wastes into useful forms like energy and agricultural input.

Biogas and organic manure contribute to 'Clean and Green Villages' by reducing the greenhouse gas emissions, reducing pollution and improving waste management.

Schemes and Programmes for 'Biogas and organic manure'

The Galvanising Organic Bio-Agro Resources Dhan (GOBARdhan)	This scheme was launched in 2018 and is an integral component of Swachh Bharat Mission (Grameen). It ensures 'Clean and Green' villages by converting organic and biodegradable waste (cattle dung, kitchen leftovers, crop residue, market waste, etc.) into biogas and bio-slurry/bio-fertilizers.
National Biogas Programme	National Biogas Programme has been launched in 2022 by the Ministry of New and Renewable Energy (MNRE). It is to support the installation of biogas plants and their use as a source of alternative fuels for cooking purposes in the country.
Sustainable Alternative towards Affordable Transportation (SATAT)	SATAT initiative has been launched in 2018 by the Ministry of Petroleum and Natural Gas. It assures offtake of BioCNG or Compressed Biogas (CBG) after purification through Oil Marketing Companies (OMCs) for sale as automotive fuels.

3. 'Agro forestry' Practices for Clean and Green Villages

Agro forestry is a cost-effective land management system that integrates crops, trees and/ livestock and provides economic and environmental benefits to small and marginal farmers.

Schemes and Programmes for Agro Forestry practices

Sub-Mission on Agroforestry (Har Medh Par Ped) Scheme	It has been launched in 2016-17 to encourage tree plantation on farm land along with crops/ cropping system to help the farmers get additional income and make their farming systems more climate resilient and adaptive.
Mission for Integrated Development of Horticulture (MIDH)	It has been launched in 2014-15 for holistic growth of the horticulture sector covering fruits, vegetables, root and tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa and bamboo.

What are the advantages of the use of agro-ecological practices for 'Clean and Green' Villages?

Mentioned below are the advantages of the use of agro-ecological practices-

Economic transformation of Villages- The development of biogas sector, horticulture and organic farming increases the revenue sources of villages leading to their economic transformation.

Increased employment opportunities- The application of agro-ecological practices provides enhanced employment opportunities especially to rural women.

Mitigate effects of climate change- The application of agro-ecological practices increases ecological resilience with respect to volatile weather. It also increases carbon sequestration and water capture in soil.

Conservation of biodiversity and natural resources- Soil organic matter, water, crop genetic diversity and natural enemies of pests are conserved by the use of these practices.

Improvement of health and nutrition- There is reduction of incidence of pesticide poisonings and pesticide-related diseases due to adoption of organic farming.

What are the Challenges in the adoption of these practices?

Threats from powerful elites- Powerful lobbies (fossil fuel companies, fertilizer, seed companies & scientists with funding connections to agribusiness) perceive large-scale transitions to agroecology as a substantial threat to their influence on farming systems. They oppose organic farming and natural farming in India. Ex- National Academy of Agricultural Sciences, based on a brainstorming session that included industry representatives has sent a letter to the Prime Minister opposing Zero Budget Natural Farming (ZBNF).

Low awareness among the farmers- The major challenge with the adoption of these agro-ecological processes is the lack of awareness among the rural population.

Lack of financial resources- Lack of access to financial resources is a major hindrance in setting up of rural industries for creating value added products.

Effect on the food industry- The diversion of good agricultural land to plantation may decrease the crop production and can create scarcity of food.

Conclusion

Clean and Green Village objectives can be expedited by scaling up agroecology-based programmes and schemes. Their implementation at the grassroots level must be improved with support from panchayats, cooperatives, Self Help Groups (SHG), and women-SHG.

Read More- [The New Indian Express](#)

UPSC Syllabus- Major crops and the cropping pattern in different regions/ parts of India

Vienna convention on diplomatic relations 1961- Explained Pointwise

Introduction

Recently, India has sent back 41 diplomats of Canada from New Delhi citing disparity in the number of diplomats between the two countries. However, Canada contends that New Delhi has not upheld its obligations under the **Vienna Convention on Diplomatic Relations, 1961**. However, MEA has insisted that its actions of sending back 41 diplomats is not against the Vienna Convention principles.

What is Vienna Convention on Diplomatic Relations, 1961?

About Vienna Convention on Diplomatic Relations 1961

Signed- 1961

Entered into Force- April 24, 1964

Ratification by Nations- Universal ratification (Exception of Palau and South Sudan)

Purpose- Provides a comprehensive basis for the establishment, maintenance and termination of diplomatic relations with the consent of independent Sovereign States.

Important articles of the Vienna Convention on Diplomatic Relations 1961

Article 22	Deals with the 'Inviolability' of mission premises- Bars the entry of law enforcement officers of the 'receiving state/host state' in the mission premises. Imposes a special duty on the 'receiving State/host' to protect the premises against intrusion, damage, disturbance of the peace or infringement of dignity.
Article 24	Deals with 'inviolability' of mission archives and documents- The 'receiving state/host state' may not seize or inspect the mission archives and documents or permit their use in legal proceedings.
Article 27	Guarantees free communication between a diplomatic mission and its sending State- The diplomatic bag carrying such communications may not be opened or detained even on suspicion of abuse.
Article 29	'Inviolability' for the person of diplomats and provides for their immunity from civil and criminal jurisdiction.
Article 36	Exemption from customs duties on diplomatic imports throughout a diplomat's posting.

What is the Significance of the Vienna Convention on Diplomatic Relations?

Vienna convention on Diplomatic Relations was signed in 1961 to provide a comprehensive basis for the diplomatic relations between two countries. The significance of the Convention is mentioned below-

Codification of 'diplomatic immunity'- The convention has codified the privileges of 'diplomatic immunity'. This has allowed diplomats to **carry out their duties** without fear of coercion or harassment.

Reaffirmation of the concept of 'inviolability' of Diplomatic Missions- The convention guarantees **freedom of expression & dignity, right to life and liberty** to the diplomatic mission through these provisions. The provisions ensure the efficient performance of the functions of diplomatic missions.

Development of 'friendly relations'- The rules of the convention are intended to facilitate the development of friendly relations among nations, **irrespective of their differences of constitutional and social systems.**

What are the Challenges with the Vienna Convention on Diplomatic Relations?

However the Vienna Convention on diplomatic relations has been facing the following challenges-

Unilateral introduction of changes in the application of the convention by Western Countries- The developed western countries have violated the 'immunity' granted to the diplomats in their countries. They have applied their humanitarian and labour laws, to selectively target the diplomats of developing countries. **Ex- Arrest of Indian Diplomat 'Devyani Khobragade' by the US on account of domestic help's abuse.**

Abuse of 'diplomatic immunity'- 'Diplomatic immunity' has been misused as it has been allowed to shield crimes like sexual abuse, molestation and human trafficking by the diplomats. **Ex-The Consul General of Bahrain in 2013 invoked 'diplomatic immunity' to avoid his arrest in the molestation case in Mumbai.**

Use of the Convention's privileges for 'espionage'- The convention provides a safety cover to the **undercover intelligence officers** posted under cover in Embassies who are mainly involved in espionages in the host country soil.

No definition of 'household/family' in the convention- The **official definition of family differs from country to country**. In case of Western countries applying their official definition of family, many diplomats from developing countries with elderly single parents or dependent university going children face problems. On the other hand, western countries demand that live-in partners of their diplomats be accepted as family members under the Convention.

Unfair application of the 'principle of reciprocity'- Principle of reciprocity is applied if a diplomatic privilege is restricted or denied to one country, even if it is applied uniformly to all diplomats stationed there. On account of their power and economic clout some countries, unfairly apply the 'principle of reciprocity'. **Ex- Recent case of India sending back the 41 Canadian diplomats has been termed as unfair application of the 'principle of reciprocity' by the Canadian authorities.**

No absolute freedom of movement of diplomats- Many countries require that diplomats seek the clearance of the Foreign Ministries before leaving the capital city. In any event, sensitive areas are out of bounds for them. **Ex- Indian Supreme Court's decision to not allow the Italian Ambassador in to leave the country in 2012 was termed as a violation of the Convention's principles of freedom of movement.**

Past instances of complete violation of the Convention principle- The Convention principles have been entirely violated at times, rendering the convention as totally ineffective. For example- **Iran taking the complete US diplomats as hostage and attack on American embassy in 1979.**

Conclusion

The Vienna Convention is now 60 years old. In these decades, the world, including that of diplomacy, has changed in fundamental ways. A review of the Convention is imminent now.

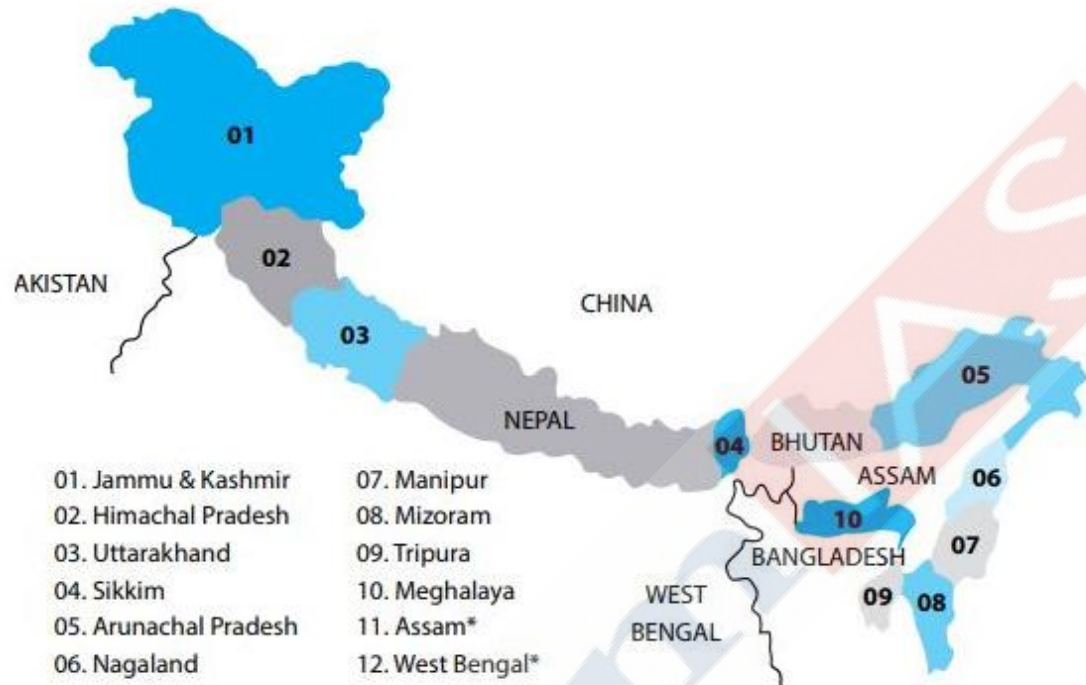
Read	More-	Indian	Express
UPSC Syllabus-	Important international institutions, agencies and fora-		Structure and Mandate

Restoring the Ecological Health of the Himalayas- Explained Pointwise

Introduction

Recently, the SC of India has asked the Union Govt to suggest a way forward in restoring the Ecological health of the Himalayas. The Union govt in its affidavit has proposed to set up a committee- under the **Chairmanship of Director of the G.B. Pant National Institute of Himalayan Environment**- to suggest measures to restore the ecological health of Himalayas. Further, the Union govt has asked the SC to direct the 13 Himalayan states to form a committee at the state level under the chairmanship of the Chief secretary for the same purpose.

The Indian Himalayan Region (Source: National Mission on Himalayan Studies)



Source- National Mission on Himalayan Studies

How is the Ecological Health of the Himalayas measured?

Ecological health of the Himalayas is measured by the metric of 'carrying capacity'. Carrying Capacity- Carrying capacity of a region is the **maximum population size** that an ecosystem or environment can sustainably support over a specific period without causing significant degradation or harm to its natural resources and overall health.

Carrying Capacity is crucial in understanding and managing the **balance between human activities and the preservation of natural ecosystems** to ensure long-term sustainability.

When the carrying capacity of the ecosystem is breached, there is deterioration of the ecological health of the ecosystem. We have witnessed several examples of deterioration of ecological health of the Himalayan ecosystem.

Examples of Himalayan Ecosystem deterioration

1. **Glacial Lake Outburst in Sikkim (2023)**
2. **Glacial Lake outburst Flood in Chamoli District Uttarakhand (2021)**
3. **Subsidence of Joshimath(2022)**
4. **Kedarnath Flash Floods (2013)**

What are the Challenges to the ecological health of Himalayas?

Mentioned below are the challenges to the ecological health of Health of the Himalayas-

Climate Change and Glacial Melting- Rising temperatures due to climate change have led to the rapid melting of glaciers triggering Glacial lake Outburst Flood (GLOF) and affected the

downstream flow of water. Ex- A/c to National Remote Sensing Centre's (NRSC) Glacial Lake Atlas of 2023, India is prone to GLOF due to climate Change which can be seen in the Sikkim GLOF 2023.

Tectonic activities in the Himalayas- The Himalayas are young, fold mountains are prone to tectonic activities. This makes the region prone to natural disasters such as landslides, avalanches, and earthquakes.

Soil Erosion and Landslides- Deforestation, construction activities and improper land use practices increase soil erosion and the risk of landslides during heavy rainfall or seismic events. Ex- Recent Landslides in HP during the heavy rainfall.

Unsustainable Tourism- Himalayan mountains are treated only as tourist destinations, ignoring their micro-climate which has led to upset in the natural balance of the Himalayan ecosystem. Ex- Large crowds and jams in Shimla, Manali.

Flawed Development Model- Building of large scale infrastructure projects without taking into account their impact on environment of the Himalayan region. Ex- Chardham Mahamarg Vikas Pariyojna, a massive infrastructure project has claimed lakhs of trees, acres of forest land and the fertile topsoil of the fragile Himalayas.

Erosion of Cultural Values of Environmental conservation- Traditional Himalayan communities have distinct cultural practices and ways of life closely tied to their natural surroundings. However, Unsustainable urbanisation has been led to the erosion of cultural values of environmental conservation. Ex- Movements like Chipko Movement are no longer observed.

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. Ex- Clusters of purple flowers (Cirsium arvense), mats of white clover (Trifolium repens) and small tumbleweed mustard with bright yellow flowers (Sisymbrium loeselii) are the threatening invasive species of the Himalayas.

Improper Waste Management- The slopes of Himalayan mountains have been dumped with garbage which has affected the natural flora and fauna balance of the Himalayan ecosystem.

Read More- [Forum IAS](#)

What is the importance of Himalayan Ecosystem?

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. This ensures water security in the Northern India.

Energy Security- Almost 33% of the country's thermal electricity and 52% of its hydro power is dependent on river waters originating in the Himalayas.

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.

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

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

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

What are the government initiatives for the restoration of the Himalayan Ecosystem?

Government has taken the following initiatives for the restoration of the Himalayan Ecosystem.

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).**

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.

Mishra Committee Report 1976- The committee recommended placing restrictions on **heavy construction work, blasting and felling of trees** in the Himalayan region.

What Should be the Way forward?

The expert committee should not become a bureaucratic or technical group- The proposed committee of the Union Govt must include **adequate citizen representation from panchayats and other urban local bodies** (atleast one-third).

Separate EIA for Himalayan Ecosystem- Policymakers should explore a **separate Environmental Impact Assessment (EIA)** for the infrastructure projects in the Himalayan region.

Sustainable Infrastructure Projects- The building design of towns associated with the Himalayan region must reflect the local ecosystem while incorporating seismic fragility and aesthetics. **Sustainable hydropower projects** must be designed and the **dams must be re-engineered** in the Himalayan ecosystem.

Sustainable Tourism- Appropriate mechanisms should be devised to help **achieve tourism growth in the landscape** in a sustainable manner having minimal impact on biodiversity.

Vigilance and Regular Patrolling- Protected areas in Himalayan region like **Hemis National Park** and **Karakoram Sanctuary in Ladakh** require vigilance and regular patrolling to reduce unwanted wildlife-tourist interaction as well as habitat destruction.

International Collaboration- Himalayan countries need to build an **international network to monitor risks** such as those from glacial lakes and give early warning of hazards like GLOFs.

Implementation of geo-technical solutions for mitigation of GLOFs-The geo-technical solutions such as the **excavation of channels** for regulated discharge, **drainage** using pipes and

pumps, **spillway construction** and **setting up small catchment dams** to cut the speed of outflow must be implemented.

Multi-Disciplinary Approach- A multi-disciplinary approach which involves inputs from all scientific agencies like the National Remote Sensing Centre (**NRSC**), Central Water Commission (**CWC**) and the **NDRF** must be implemented.

Read More- [The Hindu](#)

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

India's Bid to host Olympics 2036- Explained Pointwise

Introduction

Prime Minister Narendra Modi has confirmed India's bid to host Olympics 2036 saying that the country will "**leave no stone unturned**" to host the Olympics in 2036. PM Modi further added that India will also bid to host Youth Olympic Games in 2029. PM Modi's comments came at the Opening Ceremony of the **International Olympic Committee's 141st Session in Mumbai**. IOC president Thomas Bach was also in attendance at the event along with the who's who of the IOC.

What is the process of Selection of Host Country/City for Olympics?

The process of selection of Host Country/city has undergone a change. The change of process was necessitated because the initial process of selection of host country was marred by corruption, scandals and huge debts.

Initial Process of Selection of Host Country

Step 1	Olympic host Countries/Cities would submit a letter of interest to the IOC , through their respective national Olympic committees. This led to starting of a multi-year, multi-step evaluation process. The bidding Countries/cities would complete a series of questionnaires which was evaluated by the IOC.
Step 2	There was scrutiny of the bid by the IOC Evaluation Commission. A series of inspections of all venues were conducted by the IOC Evaluation Commission. The final bids were then put to vote at an IOC session. The hosts were selected seven years in advance as per the Olympic Charter . It often led to excessive spending among the bidders, to secure rights, often ending in huge debts, corruptions and scandals.

What is the 'new process' of selection of the Host Country/City?

In the 2014 IOC session, roadmap for the future of the Olympic Movement, **Olympic Agenda 2020**, was laid Down. One part of the Olympic Agenda 2020, dealt with a new process for host city selection, and it was called the '**new norm**'. It was officially adopted during the 2019 IOC session in Lausanne.

The new process is based in three Pillars- Flexibility, Sustainability and Cost Effectiveness.

Flexibility	The 'New Process' has done away with the 7 years time period for the selection of Host Country. The Hosts can be selected much before 7 years (Brisbane 2032 Olympics-Selected 11 years before in 2021). Also, the Hosts can be selected as lately as 7 years (Olympics 2036 can be selected even after 2030). There are two dialogue mechanisms- 1. Continuous Dialogue- Non-Committal stage . It is basically a discussion between the IOC's Future Hosts Commission (FHC) and interested parties about the hosts' vision for the Games, its purpose and long-term legacy. 2. Targeted Dialogue- Determining Stage . The host city/country is selected after detailed scrutiny and negotiation with the IOC. The host country/city can be considered for hosting later editions of the games as well.
Sustainability	Hosts are encouraged as far as possible to use existing and temporary venues . Any new venues built must be in line with existing developmental plans and have a long-term justification irrespective of the Games. All editions of the summer/winter/youth Olympic Games from 2030 onwards must also adhere to the IOC's climate positive commitment .
Cost-Effectiveness	As per the IOC's, the focus on using existing and temporary venues has led to an 80% decrease in the bid budgets for the 2026 Winter Games compared to the 2018 and 2022 editions.

Read More – [India's 2036 Olympic dream](#)

Why is India bidding for Host Country rights for Olympics 2036?

Following are the reasons for India bidding for Host Country Rights for Olympics 2036-

- 1. The Olympics as a medium for enhancement of Soft-Power-** India wants to use Olympics games to showcase its display and enhance its soft power. For ex- **Post-World War Europe, post-apartheid South Africa, Brazil and China have used olympics as a medium for showcasing their soft-power.**
- 2. Hosting rights of Olympics aligns with India's Global Ambition-** After a historic hosting of the G-20 summit, India wants to successfully host the Olympics to elevate its position in global politics. This will help in building a strong case for **India's candidature for permanent seat in the UNSC.**
- 3. Push to India's Sporting Culture-** The government has been providing the nudge to sports culture with schemes like Khelo India, which has benefitted us in **Asian Games 2023 (107 medals)** and **Tokyo Olympics (7 medals)**. The world class infrastructure created for the Olympic games would give a further strong push to Indian sporting culture.
- 4. Promotion of Investment and Tourism-** India's bid for hosting the olympics can catalyse investment and tourism in the country. For ex- **Beijing Olympics(2008) led to significant GDP growth acceleration of around 0.8% in China.**

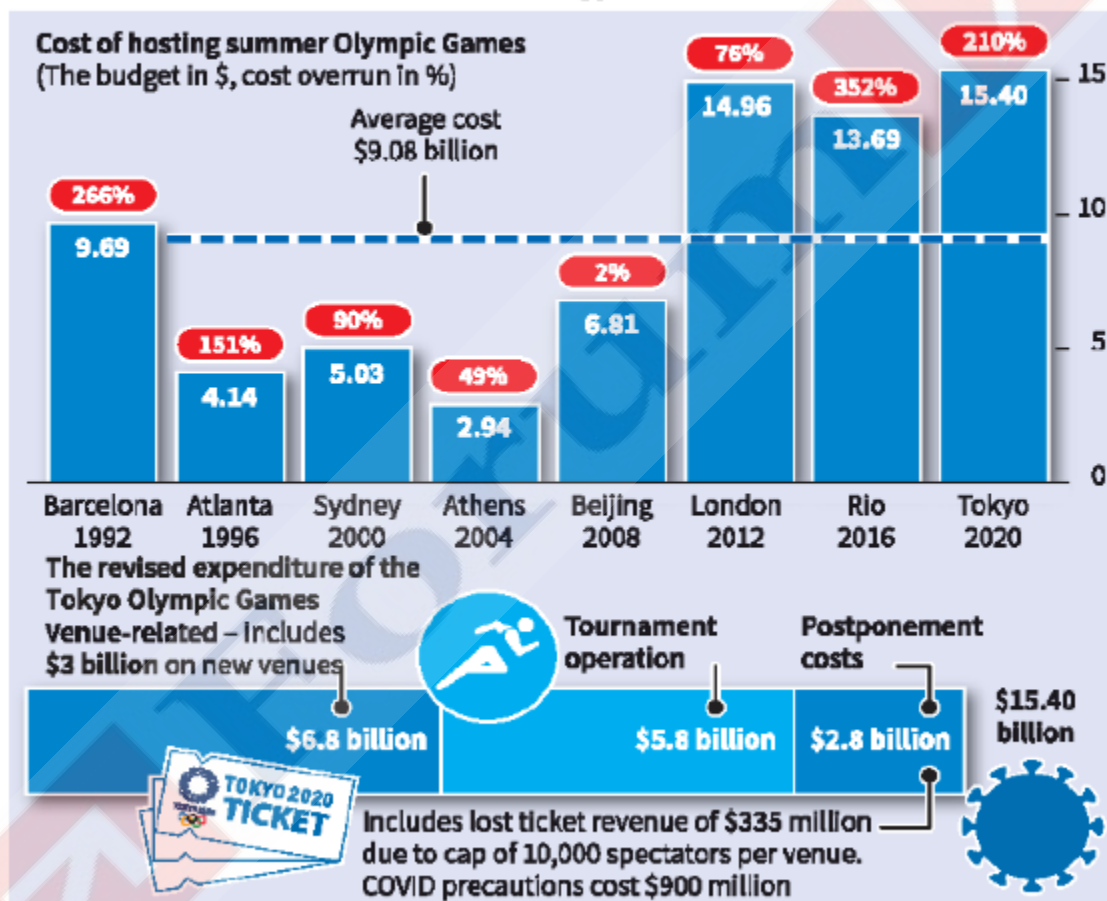
5.Previous Experiences of Hosting Big tournaments- India has successfully hosted several big tournaments in the past like the **Asian Games (1982)**. With India's large economic might now, it can successfully host the biggest sporting tournament on the planet.

What are the Challenges in successful hosting of the Olympics?

1.Cost Overruns and financial distress- The Olympic games have witnessed cost over runs and caused financial distress in many Countries. Ex- **Greece Financial crisis after the Athens Olympics 2004**, **Economic crisis in Brazil after the 2010 olympics** and **Tokyo Olympics 2020 cost over run (\$15.4 bn)**

The price of the Olympics

With India openly declaring its willingness to host the 2036 edition of the Olympic Games, a look at the cost of the Games as they become bigger and better each year



Source: Regression to the tail: Why the Olympics blow up, University of Oxford

© GRAPHIC NEWS

Source-

The Hindu

2.Bidding is an expensive endeavour- Bidding for Olympics is an expensive endeavour with countries spending close to \$50-100 million even for unsuccessful bids. For Ex- **Tokyo spent \$150 million for unsuccessful bid in 2016**.

3.Low capacity of Urban Local Bodies in India- The majority of expenditure and the implementation of the Olympic games is done by the Urban Local Body of the host city. Urban Local Bodies of India suffer from the **3F challenge** of **Funds, Functions and Functionaries**.

4.Previous corruption scandals/scams- The **Commonwealth games of 2010** was plagued by the corruption scandals by the administrators and organisers. There are challenges of politico-bureaucratic interference in successful conduct of the games.

5.Environmental Challenges- Building of large scale infrastructure for the games would involve large scale destruction of environment like **felling of trees**.

Conclusion

With India's ambition to hold the Olympics 2036, we need to work to resolve the challenges we may face in hosting the Olympics. India must aim to use the Olympics 2036 to arrive on the world stage as a major superpower as China did with the Beijing Olympics 2008.

Read	More-	The	Hindu
UPSC Syllabus- Important	International Institutions, agencies and fora – their Structure, Mandate.		
	Government Policies and Interventions for Development in various sectors and Issues arising out of their Design and Implementation.		

India-Bhutan Relations- Explained Pointwise

Introduction

India-Bhutan have maintained a close relationship for many years. However, recently **China has asked Bhutan** to **establish diplomatic ties with it** and **resolve the boundary issue** “as soon as possible” to transform the relations between the two neighbours into “legal form”. The Chinese statement came after the conclusion of the meeting between the Foreign Minister of Bhutan, Tandi Dorji and the Chinese Foreign Minister, Wang Yi. This was any Bhutanese Foreign minister's first ever visit to China. **These developments in the China-Bhutan relations have deep implications for India-Bhutan relations**.

How have the India – Bhutan relations in the past and what are the various areas of cooperation?

Since 1947, when Bhutan got its independence, it has been close and friendly with India. India is Bhutan's biggest trading partner, and it provides Bhutan a lot of economic and technical help.

Read here- [India-Bhutan relations](#)

What is the importance of Bhutan to India and vice versa?

Importance of Bhutan to India-

Strategic Importance- India considers Bhutan as a **buffer state** between India and China, as Bhutan shares its borders with China. It gives buffer for the **Siliguri corridor(chicken's neck)** which connects the Indian mainland with the north eastern states.

Cultural Ties- Bhutan has deep cultural ties with India. Bhutan's religion, language, and customs are heavily influenced by India's culture. Additionally, Bhutan has been a strong supporter of India's cultural diplomacy.

Hydropower cooperation- Mutually beneficial hydropower cooperation with Bhutan forms the core of bilateral economic cooperation, providing clean power for India and economic prosperity for Bhutan. Hydroelectricity has become one of the biggest revenue earners of Bhutan, which makes Bhutan the country with the highest per capita income in South Asia today.

Importance of India to Bhutan-

Economic Support- India is Bhutan's largest trading partner and provides significant economic support. For instance, since 2014, India's trade with Bhutan has almost tripled from US\$484 million in 2014-15 to US\$1.42 billion in 2021-22, accounting for about 80 percent of Bhutan's overall trade.

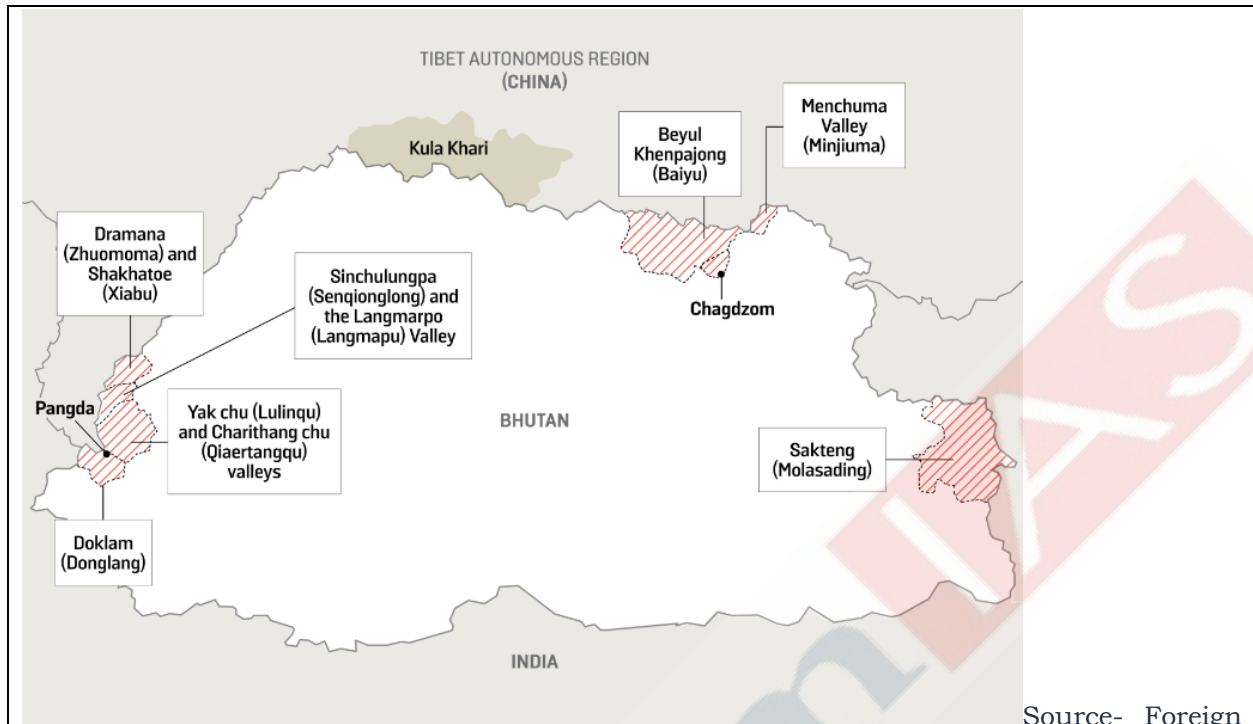
Security- India has been playing a crucial role in ensuring the security of Bhutan. For instance, India's military helps secure Bhutan's borders, and India has helped Bhutan in countering insurgent groups. For Ex- Doklam crisis 2017.

Diplomatic Support- India has been a strong diplomatic supporter of Bhutan. India has helped Bhutan in its international engagements, and India's support has been essential in ensuring Bhutan's sovereignty.

Socio-economic development- India has been extending assistance to Bhutan's socio-economic development since the early 1960s, including multi-sectoral project-tied assistance, small development projects and direct budgetary support.

What are the recent developments in China – Bhutan relations?

Border Dispute Resolution- China shares borders with 14 nations. Of those, 14 nations, 12 nations have settled their borders. Bhutan and India are the only two countries with which border disputes still remain. China has now turned to Bhutan to settle their long standing border dispute.



Source- Foreign

Policy Magazine

North Bhutan- **Jakarlung** and **Pasamlung** areas in North Bhutan. China has built several villages in this area of Bhutan.

West Bhutan- Doklam Plateau. China considers it an extension of its Chumbi Valley region, located between Sikkim and Bhutan. However, India considers the Doklam Plateau as Bhutanese territory.

East Bhutan- Sakteng Wildlife Sanctuary. China considers it the part of its own territory. The wildlife sanctuary is located near the Arunachal Pradesh Border of India.

Push for Establishment of Formal Diplomatic Relations- China is pushing Bhutan to establish formal diplomatic relations by opening of embassies. Till now, Bhutan does not have any formal diplomatic relations with the P5 – the five permanent members of the UN Security Council.

Enhanced Economic Cooperation- China has been providing economic assistance to Bhutan, particularly in the areas of infrastructure development, agriculture, and tourism. In 2020, the two countries signed an agreement to establish a **sister city relationship** between **Xining**, the capital of Qinghai province in China, and **Thimphu**, the capital of Bhutan.

Endorsement of Xi Jinping's Vision by Bhutan- Bhutan has endorsed the Global Security Initiative (GSI), the Global Development Initiative (GDI) and the Global Cultural Initiative (GCI) of Chinese President Xi jingping.

People-to-People Ties- In recent years, there has been an **increase in people-to-people ties** between China and Bhutan, with more Bhutanese students studying in China and Chinese tourists visiting Bhutan. In 2019, the two countries signed an agreement to promote tourism cooperation.

COVID-19 Pandemic- China has provided medical supplies and equipment to Bhutan to help fight the COVID-19 pandemic. In 2021, Bhutan received a donation of COVID-19 vaccines from China, which were used to vaccinate Bhutanese citizens.

What are the implications of the deepening China-Bhutan relations on India?

Strategic implications- If Bhutan gives into the claim of China over Doklam region, it will create deep security challenges for India. The Doklam region is located next to India's **Chicken neck (Siliguri Corridor)**. This corridor connects India's mainland with the north-eastern region.

Economic implications- China's growing economic influence in Bhutan could **impact India's trade and economic interests in the region**. It could also lead to China gaining access to Bhutan's natural resources like hydro-electricity, which could pose a challenge to India's energy security.

Diplomatic implications- China's growing influence in Bhutan **could impact Bhutan's traditional pro-India foreign policy**. This could lead to Bhutan distancing itself from India and aligning more closely with China, which could have diplomatic implications for India in the region.

What should the Indian response to counter the growing Chinese influence in Bhutan?

Further strengthening the Economic Ties- India must further strengthen the economic ties with Bhutan to counter the growing Chinese economic influence. Recently, India has extended the **additional "standby" credit facility to Bhutan** and offered financial assurances to Bhutan for its **13th Five Year Plan and administrative reforms**.

Focus on developing long-term bilateral arrangements- India must develop a long-term bilateral arrangement to ensure a reliable supply of critical commodities like petroleum, fertilisers, and coal to Bhutan. Also, India must develop closer relations in the energy sector with Bhutan. For ex- India has recently allowed Bhutan to sell power from its **Basochhu hydroelectric project** in India.

Resolution of Boundary Issues- India and Bhutan should work towards resolving their boundary issues through peaceful means. This will help in maintaining a peaceful border and will enhance the trust and confidence between the two countries.

Address China's concerns- India can try to address some of China's concerns regarding its presence in the region, such as by **promoting transparency and dialogue** in its engagement with Bhutan and other countries in the neighbourhood.

Use of multilateral platforms- India can use multilateral platforms such as the **BRICS** and the **SCO** to engage with China on issues related to the region and work towards finding mutually acceptable solutions.

Improving Connectivity- India can help Bhutan in improving its connectivity by providing **better road and rail links**. This will help in boosting trade and tourism between the two countries.

Enhancing Defence Cooperation- India and Bhutan can work towards enhancing their defense cooperation by increasing the frequency of joint military exercises and training programs. This will help Bhutan in **improving its defense capabilities**.

Addressing Environmental Concerns- India and Bhutan can collaborate on environmental issues by sharing their knowledge and expertise on sustainable development. India can also help Bhutan in addressing its concerns over climate change and natural disasters.

Promoting People-to-People Contact- To **strengthen the cultural bond** between the two countries, there should be more exchanges of students, academicians, and cultural groups between India and Bhutan. This will help in promoting mutual understanding and respect between the two countries.

Bhutan must also take into considerations India's national security concerns before finalising any boundary settlement agreement with China. A **border deal** that addresses Bhutanese concerns in the north while **preserving India's red lines in the west** will not necessarily undermine New Delhi's interests. Rather than alarm, India must approach the boundary negotiations with a greater understanding of Bhutan's reasoning, and with confidence that India's long-trusted neighbour will take both India's interests and its own into consideration before any final agreement.

Read More- [The Hindu](#)

UPSC Syllabus- India and its neighbourhood relations

[Yojana October 2023 Summary] Agriculture Infrastructure In India- Explained Pointwise

Introduction

Agriculture infrastructure plays a vital role at every single step in agriculture like supply of input, sowing of crops and the post-harvest management. Indian government has taken several steps in recent years for the development of a resilient agriculture infrastructure in India.

What is agriculture infrastructure and what are its advantages?

Agriculture Infrastructure refers to the diverse systems and network of resources that are vital to produce, preserve, process, procure and trade agricultural products.

Advantages of agricultural infrastructure

1. Increase of the agricultural productivity- Developed agricultural infrastructure ensures proper availability of agricultural inputs like **seeds**, **water** etc. This has increased agricultural production in India over the decades.

Table 1. Area and production of major crops during 1950-51 and 2022-23

	Area (million hectares)			Production (million tonnes)		
	1950-51	2022-23*	Times increase	1950-51	2022-23*	Times increase
Foodgrains	97.32	132.2	1.36	50.82	330.53	6.50
Cereals	77.42	103.07	1.33	42.41	303	7.14
Rice	30.81	47.66	1.55	20.58	135.54	6.59
Wheat	9.75	31.82	3.26	6.46	112.74	17.45
Coarse cereals/Millets	37.67	23.58	0.63	15.38	55.95	3.64
Pulses	19.09	29.13	1.53	8.41	27.5	3.27
Oilseeds	10.73	30.09	2.80	5.16	40.99	7.94

Source-Yojana

2. Reduction of post-harvest losses- The construction of basic post-harvest agriculture infrastructures like **storage houses, pack houses, proper supply chain** etc. reduce the post-harvest losses.

3. Increase in farmers Income- Agricultural marketing infrastructures like **APMC, e-NAM** help in better price realisation of farmer's produce.

What are the challenges of agriculture infrastructure in India and what have been the various government initiatives ?

Agri Process/Inputs	Infrastructural Challenges	Government Initiatives
Seed	Availability and affordability of quality certified seeds	Establishment of 'Community seed Banks'. Push to create the infrastructure for seed storage and distribution through the Seed Act and PPVFR Act .
Fertilisers	Production, distribution and disproportionate use of fertilisers. storage, and use of	' New Urea Policy 2015 '- Aims to increase indigenous urea production. Soil Health Card and Neem coated Urea- To promote the proportionate use of Urea. DBT through PoS Machines- The infrastructure is to stop fertiliser subsidy leakages.
Irrigation	53% area is rain fed and there is acute shortage of irrigation infrastructure.	Pradhan Mantri Krishi Sinchai Yojana (PMKSY) & Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) - Asset creation for irrigation. Interlinking of Rivers- Ex-Ken-Betwa interlinking Rain water Harvesting, Participatory Irrigation Management- Govt has been

		creating the infrastructure to improve water use efficiency for agriculture.
Agricultural credit	Lack of access to credit due to less banks and credit lending institutions in rural areas.	Lead Bank Scheme and Service area approach - To increase the presence of banking infrastructure in rural areas. Promotion of Micro-finance institutions (MFIs)- Micro-finance institutions have been promoted to provide improved access to credit infrastructure.
Agricultural Storage	Poor farm Storage facilities Concentration of cold storages in few states(CAG-64% in Punjab, Haryana,UP) Shortage of ripening Chambers, pack houses and cold storages. More than 30% of the produce from farm gate is lost due to inadequate cold chain infrastructure.	Agriculture Infrastructure Fund - It was launched in 2020 to create required pre and post-harvest management infrastructures in the agriculture sector. Mission for Integrated Development of Horticulture (MIDH) - Post-Harvest Management Infrastructure including cold storage, cold room facilities for horticultural produce. Negotiable Warehouse Receipts (NWRs) - Farmers can seek loans from banks against the warehouse receipts issued to them against their storage.
Agricultural Marketing	Issues with the infrastructure of APMC like lack of assaying & grading facilities, increased cost of transportation to get the crops to Mandis, less space in APMC Mandi for sale of crops.	Electronic National Agricultural Market (E-NAM) - Pan India electronic trading platform which aims to create a seamless, unified national market for agricultural produce. Model Agricultural Produce and Livestock Marketing (APLM) Act 2017 - Setting up private wholesale market yards. Reduce the area covered by APMC mandi from 462 sq.km to 280 sq.km to reduce the cost of transportation.
E-Tech for Agricultural Extension	Lack of proper infrastructure for adoption of E-tech in agriculture.	m-KISAN portal, Meghdoot App - These E-tech infrastructures have been created to increase the agricultural production.

Read More- [Agricultural Technology](#)

What Should be the way forward to further improve agriculture Infrastructure in India?

Increase the private sector investment in Agri-Infra- **Ashok Dalwai Committee** has suggested treating 'agriculture as an enterprise'. Thus efforts must be taken to catalyse private investments through contract farming, agricultural marketing. This will help in development of world class infrastructure.

Improvement of Agri-futures markets- China and US have properly developed Agri-futures markets which has helped in improvement of their agricultural infrastructure. The deepening of Agri-markets in India would yield the same result.

Implementation of Shantakumar Committee Recommendations- Improving the private sector involvement in **Building Silos**, development of **Dedicated freight corridors** and **multi-modal logistics park** are some of the recommendations of Shantakumar committee to improve the transport and marketing infrastructure of agri-produce.

Early completion of Bharat Net Project and impartation of digital literacy to farmers- The future of agriculture depends upon the robust digital infrastructure. E-Tech projects like **Kisan Suvidha App**, **Meghdoot App** can spur development, growth, equity and sustainability of agriculture sector.

Read	More-	Indian	Express
UPSC Syllabus- Food Processing and Related Industries in India- Scope and Significance, Location, Upstream and Downstream Requirements, Supply Chain Management.			

India-Qatar Relations- Explained Pointwise

Introduction

India-Qatar relations is facing a **diplomatic stress test** after Qatar awarded death sentence to eight retired Indian Naval personnel on espionage charges.

A brief snippet of the Espionage Case

Timeline of the Case	<p>August 2022- Eight Indian Naval personnel were arrested by the Qatari Authorities on charges of espionage of Qatar's submarine program for Israel.</p> <p>September 2022- First bail plea was rejected.</p> <p>March 2023- First trial was held.</p> <p>June 2023- Second trial was held.</p> <p>October 1, 2023- India was granted consular access and Indian Ambassador met the prisoners in person.</p> <p>October 26, 2023- The eight Indian Navy personnel were handed the death penalty by a local court.</p>
India's Options for securing the release of personnels	<ol style="list-style-type: none"> Invoking the agreement 'Transfer of Sentenced Persons'- India and Qatar signed the agreement in March 2015. Under this agreement, Indian prisoners convicted in Qatar can be brought to India to serve the remaining part of their sentence. Leveraging the defence ties- India must leverage the strong defence ties with Qatar(Defence Cooperation Agreement) to secure relief for the personnels. Legal Appeals- Pursue legal appeals through international courts like ICJ.(Kulbhushan Jadhav Case) Deft Diplomacy- Resolve the case through 'deft diplomacy' involving the political intervention even at the level of Prime Minister

(if needed).
 5. **Campaign Diplomacy-** Building an international campaign to appeal for clemency.

What is the history of India-Qatar diplomatic relations?



Source- Britannica Encyclopedia

1971	India was among the few countries which recognized Qatar soon after its independence in 1971.
1973	India and Qatar established full diplomatic relations in 1973. Year 2023, marks the 50 years of the bilateral diplomatic relations.
2008	Visit of PM Manmohan Singh to Qatar marked a significant turning point in India-Qatar Relations.
2015	The Emir of Sheikh Tamim Bin Hamad Al Thani visited India in 2015.
2016	PM Narendra Modi visited Qatar in 2016.

What is the significance of India-Qatar Relations?

Political Significance- Qatar's membership in **Gulf Cooperation Council (GCC)** is politically significant for India, especially concerning issues like Kashmir. Also, India needs support of Qatar for **UNSC permanent membership**.

Energy Security- Qatar is the largest supplier of LNG to India. LNG makes up almost **50% of our LNG imports**.

Strong economic and trade ties- India is among the **top four largest export destinations** for Qatar (Qatar exports to India- LNG, LPG, chemicals and petrochemicals, fertilisers, plastics). India is also among the **top three sources of Qatar's imports** (India's key exports to Qatar include cereals, copper articles, iron and steel articles, vegetables, fruits).

Strong Business Presence of Indian Companies- Several Indian Companies like L&T, Wipro, TCS and TechMahindra operate in Qatar.

Large Expatriate Community and Remittances- Around **8 lakh Indian expatriate community** live and work in Qatar. The flow of remittances (**around 750 million dollars**) and safety of Indian expatriate community, makes Qatar vital for India's interest.

Defence and strategic co-operation- India and Qatar have signed a **Defence Cooperation Agreement** for stronger defence cooperation. The maritime relations are further strengthened by **Exercise Zair-Al-Bahr**.

Vibrant Cultural Exchanges- Cultural events organised by community organizations affiliated to the **Indian Cultural Centre (ICC)**. Qatar was a co-sponsor of India's resolution for **declaration of June 21 as International Yoga Day**.

What are the Challenges in the India-Qatar Relations?

Death sentence to arrested Indian Navy Personnel- The secretive trial and the harsh punishment to Indian Navy personnel have sent shock waves in the expatriate Indian community.

Islamic Conservatism- Qatar's condemnation of the remarks made by the Indian ruling party spokesperson about Prophet was the sharpest among all the West Asian nations.

Harbouring Terrorism- Qatar with its deep pockets has harboured the **Taliban** and is amongst the major backers of the Muslim Brotherhood.

Use of Soft-Power against India- The Qatar-financed Al-Jazeera channel has often run aggressive campaigns against India like **the abrogation of Article 370 in 2019**.

Read More- [On India-Qatar relations – Qatar Questions](#)

Conclusion

The conflict in West Asia has complicated New Delhi's task of smoothly managing its relations with Qatar. India should carefully use every diplomatic channel to help its citizens in Qatar. India must effectively use its 'West Asia' policy to further its engagement with Qatar.

Read More- [The Indian Express](#)
Syllabus- GS Paper 2 International Relations — Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.

[Yojana October 2023 Summary]-Port Infrastructure in India- Explained Pointwise**Introduction**

A highly developed Port infrastructure is necessary for the economic development and progress of a nation. Development of Port infrastructure has been a core focus area of India since Independence. In recent years, there has been further strong push from the Indian government for 'Port led Development'.

What is the Current Status of Port Infrastructure in India?

India's large coastline, which spans for over 7500 kms, is dotted with 13 Major Ports and 200 Minor Ports.

Major Ports- Represented on the Map

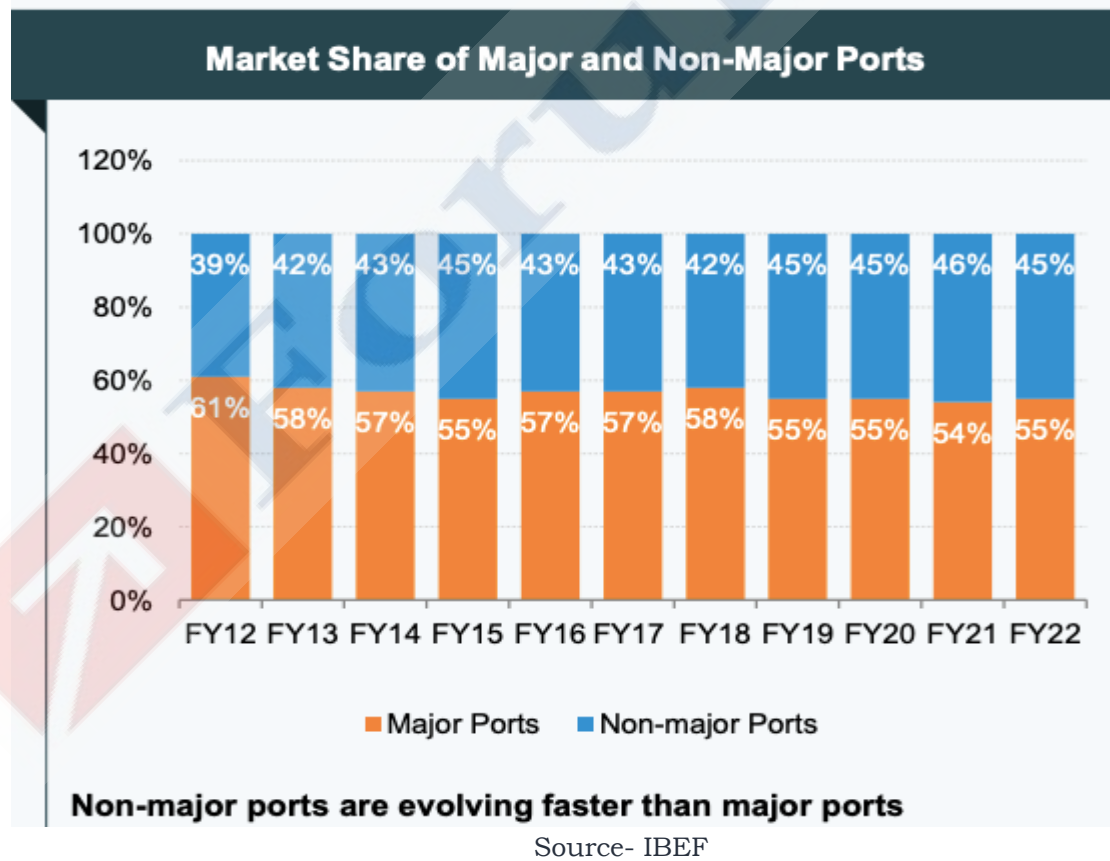
Source- IBEF

Institutional arrangement governing port Infrastructure in India

Major Ports	(1) Managed by the Central Government. (2) Falls under the Union List. (3) Major Ports Authorities Act 2021 (Repealed the earlier Major Ports Trust Act, 1963). The Government of India appoints a Board of Trustees to oversee each major port. Their responsibilities include port development, management and operations.
Minor Ports	(1) Managed by the State governments through State Maritime Board (Gujarat, Maharashtra and Tamil Nadu). (2) Falls under the Concurrent List . Comes under the jurisdiction of respective State Governments but the Union Government has overriding legislative and executive powers . (3) All the Non-Major Ports (minor ports) are governed under the Indian Ports Act of 1908 .

Status of Trade Handling by the Port Infrastructure in India

- (1) Over **95% of India's trade by volume** and **65% by value** is done using maritime transport facilities at ports.
- (2) India's key ports had a capacity of **1,598 million tonnes per annum (MTPA) in FY22**.
- (3) **Turnaround time** (time that is taken between the arrival of a vessel and its departure) has reduced to **62.16 hours** in FY21 from **82.32 hours** in FY17.
- (4) Non-major ports accounted for **45% of the total cargo traffic** at Indian ports in FY22. There has been a significant shift of traffic from the major ports to the non-major ports.



What is the significance of developed port infrastructure for India?

- 1. Facilitates International Trade-** In FY 2020-21, the major ports in India handled 704.8 million tonnes of cargo which comprised a wide range of commodities such as coal, crude oil, iron ore and containers.
- 2. Employment generation-** According to a study by the **National Council of Applied Economic Research (NCAER)**, the port sector has the potential to create around 40 million direct and indirect jobs in India by 2025.
- 3. Reduction of logistics cost-** Growth of coastal shipping and inland waterways, which are **60 to 80% less expensive**, will help in bring down the logistics cost which is currently 14% of the GDP. This will increase the trade competitiveness, improve supply chain efficiency and boost economic growth.
- 4. Boost to Blue Economy-** India is one of the **world's top five producers of fish** in the world. Developed port infrastructure can boost the export of marine products.
- 5. Strengthening of National Security-** Developed port infrastructure ensures the security of strategic installations which are located near the ports like **naval bases, nuclear power plants, and satellite and missile launching ranges**. Illegal practices like **drug trafficking, maritime piracy** can be controlled by properly developed port infrastructure.
- 6. Emergence of India as a net security provider in the Indian Ocean Region-** Indian Port Development can serve as a **hub and spoke model** for the coastal development of other South Asian Countries. This will help in countering the Chinese BRI project which is coercive in nature.
- 7. Environment-** Development of port infrastructure is necessary to counter the challenges of **overfishing, coastal degradation, marine pollution** and **rising sea levels**.
- 8. Development of Coastal Communities-** Sustainable livelihood development of the fisheries sector **promotes the inclusive development** of coastal communities.

What are the challenges with the port infrastructure of India?

- 1. High Turnaround time-** Although the turnaround time of Indian ports has improved to 62.16 hours, it is still **poor compared to global standards** e.g., Japan (8.16 hours), Taiwan (10.56 hours), Hong Kong (12.48 hours). High turn around time has made the Indian ports less competitive.
- 2. Under developed Port Infrastructure-** According to a **report by the National Transport Development Policy Committee**, the capacity utilization of major ports in India was around 65% in 2019. Insufficient container tonnage, lack of handling equipments, lack of proper berthing facilities, lack of navigational facilities, IT systems and poor road and rail connectivity to and from ports etc. are some of the infrastructural challenges plaguing the port sector.
- 3. Issues with the acquisition of Land for Port Expansion-** According to a **report by the Parliamentary Standing Committee on Transport, Tourism, and Culture**, land acquisition for port development in India has been a significant challenge. This has led to delays in several projects.
- 4. Complex custom procedures and lengthy documentation process-** In some **major ports like Singapore**, modernized custom administrations have adopted a highly selective procedure for examinations of containers and about 95% of containers are allowed clearance without any

physical examinations. In India, rules require 10% of the contents of each box to be checked and verified. It causes delay and adds a high transportation costs.

5. Issues with Regulations- Major and minor ports are governed by distinct authorities. According to a report by the World Bank, the lack of a unified regulatory body and overlapping jurisdictions among different agencies has led to regulatory uncertainty in the port sector.

6. Issues with the PPP model of operations of the ports- Tariff regulation, lack of a dispute settlement process and strict regulation on the scope of private players work are some of the issues with the PPP model of port operations.

7.Environmental Challenges- Oil Spills, ballast water discharge and the dredging operations for port development harm the marine environment and ecology.

8. Social impacts of Port Development- The majority of port development and initiatives result in displacement of indigenous coastal populations (such as Gangavaram Port in Andhra and Mundra in Gujarat).

What are the government Initiatives for Development of Port Infrastructure in India?

1. Sagarmala Project- To promote port-led development in the country through harnessing India's 7,500 km long coastline, 14,500 km of potentially navigable waterways and strategic location on key international maritime trade routes. The main vision of the project is to reduce logistics cost.

2. Project UNNATI- It has been launched to benchmark operational and financial performance of the 12 major ports with selected Indian private ports and best-in-class international ports for identifying improvement areas.

3. 100 % FDI under the automatic route for construction and maintenance of India Ports- Due to this FDI liberalisation, Indian ports have received cumulative FDI inflow worth US\$1.63 billion between April 2000 and June 2021.

4. Passage of Major Port Authorities Act 2021- The Act aims to decentralise decision-making and reinforce excellence in major port governance.

5. Marine Aids to Navigation Act 2021- The Act provides for increased safety and efficiency in vessel traffic services and training and certification at par with international standards.

6. The Indian Vessels Act 2021- The Act aims to bring uniformity in law and standardised provisions across all inland waterways in the country.

7. Tax Holiday for private port development players- A 10-year tax holiday has been provided to enterprises engaged in the business of developing, maintaining and operating ports, inland waterways and inland ports.

Read More- [Sagarmala Project](#)

What Should be the way forward?

Suggestions have been provided in the report titled "Promotion of Infrastructure in India's Maritime Sector" by the Ministry of Ports, Shipping & Waterways, to improve the port infrastructure and efficiency.

1. Formulate policies for generation of employment opportunities- Creation of **Coastal Economic Zones (CEZs)**, **Coastal Economic Units (CEUs)**, **Port-Linked Industrial & Maritime Clusters** and **Smart Industrial Port cities** would generate employment opportunities.

2. Link Private Ports with the Major and Minor Ports of the country- To cater to the growing requirement for import/ export of manufactured goods/ raw materials.

3. Close coordination between stakeholders- Ministry of Ports should work in close coordination with the Ministry of Road Transport and Highways, NHAI, and Ministry of Environment to **address the delays in projects due to land acquisition** and **environmental clearances**.

4. Implementation of smart port technologies and solutions- Implementing technologies such as **blockchain**, **Internet of Things (IoT)** and **data analytics** can enhance transparency, efficiency and security in port operations.

5. Focus on Green port development- The Ministry of port should formulate proper guidelines and conduct an **environmental impact assessment** before releasing funds for any port connectivity project.

India must implement the **Maritime India Vision 2030** and take initiatives such as developing world-class Mega Ports, transshipment hubs and infrastructure modernization of ports.

Read More- [Indian Express](#)

UPSC Syllabus- Infrastructure: Energy, Ports, Airports, Roads, Railways, and others.

Electoral Bonds Scheme- Explained Pointwise

Introduction

A five-judge Constitution Bench of the Supreme Court headed by Chief Justice of India (CJI) D Y Chandrachud will begin hearing a batch of petitions challenging the Finance Ministry's **Electoral Bonds Scheme 2018**. The petitioners have argued that 'principle of anonymity' in the electoral bonds scheme **goes against the 'right to know'** which is a fundamental right under the 'right to information'(Article 19). However, **Attorney General R Venkataramani** told the Supreme Court, by way of written submissions, that the **citizens' right to know is subject to reasonable restrictions**. Against the backdrop of these developments, let us have a detailed look at the Electoral Bonds Scheme.

What are electoral Bonds?

Definition	Electoral bonds are interest-free "bearer instruments" . (Bearer Instruments are similar to promissory notes. These are payable to the bearer on demand)
Introduction	Electoral Bonds were introduced with the Finance Bill 2017 . The scheme was notified on January 29, 2018.
Eligibility of Donors	(1)Any citizen of India or entities incorporated or established in India can purchase these Bonds. (2)Citizens can buy electoral bonds either singly or jointly with other individuals.

Eligibility of Political Parties	Only political parties registered under Section 29A of the Representation of the People Act, 1951 and which secured not less than 1% of votes polled in the last general election to the House of the People or the Legislative Assembly of the State, are eligible to receive electoral bonds.
Functioning of the Electoral Bond Scheme	(1)The State Bank of India (SBI) issues electoral bonds in the months of January, April, July and October . (2)The electoral bonds are available in denominations from Rs 1,000 to Rs 1 crore . (3)The donors can buy electoral bonds and transfer them into the accounts of the political parties as a donation. The name of the donor is kept confidential . (4)Political parties create a specific account . This account is verified by the ECI . The political parties encash the electoral bonds only in this verified account . (5)The bonds remain valid for 15 days . Within that time, the political parties have to encash the electoral bond in the designated accounts.

What is the significance of Electoral Bonds Scheme 2018?

- 1. Transparency in political funding-** Electoral bonds provide a transparent route for parties to collect funds, as electoral bonds are allowed to be **sold only through SBI** and to **KYC validated individuals only**.
- 2. Reduced chances of misuse of bonds-** A limited window for the sale of these bonds and a **very short maturity period** (life of bonds is only 15 days), makes the misuse of these bonds difficult.
- 3. Protection of anonymity-** The bearer bonds provide anonymity to donors which prevent their **post-poll intimidation or harassment** by political opponents.
- 4. Political accountability-** The political parties are required to submit the details about contributions received through electoral bonds **to the Election Commission** which ensures their accountability.
- 5. Reduction of use of black money for Political Funding-** Under the Electoral bond scheme, the amount of money that a party can accept in cash from anonymous sources has **reduced from Rs 20,000 to Rs 2,000**.

What are the challenges/drawbacks with the Electoral Bonds Scheme 2018?

- 1. Against the 'right to know'**- Electoral bonds donations to political parties hide the identity of the donors and recipients. Before the introduction of electoral bonds, political parties had to disclose details of all its donors, who have donated more than Rs 20,000. Hence, electoral bonds compromise the citizen's 'right to know', which is **part of the right to freedom of expression under Article 19 of the Constitution**.
- 2. Information asymmetry-** Principle of anonymity does not apply to the government of the day, which can always access the donor details by demanding the **data from the State Bank of India (SBI)**. The bonds provide a ruling party with a chance to threaten the donors of the opposition party.

3. Loopholes in transparency of donation limits from corporate entities- The electoral Bond scheme removed the clause of the Companies Act 2013. As per the previous clause of the Companies Act 2013, a company could make a political contribution only if its net average profit of three preceding financial years was 7.5%. The removal of this clause has **raised concerns of black money in political funding through shell companies**.

4. Influence of foreign funding- Electoral bonds invite foreign corporate powers to impact Indian politics with the **removal of the cap on foreign funding**.

5. Leading to Crony-Capitalism- Electoral bonds may become a convenient channel for businesses to **round-trip their cash parked in tax havens** to political parties for a favour through shell companies.

6. Rise in large donations from corporates- One of the main arguments for introduction of electoral bonds was to allow common people to easily fund political parties of their choice, but more than **90% of the bonds have been of the highest denomination (Rs 1 crore)**.

7. Passage of electoral Bonds Scheme as Money Bill- The passage of Electoral Bonds scheme as money bill **by-passed the scrutiny of Rajya Sabha**.

Read More- Issues in Electoral Funding in India – Explained, pointwise

What should be the Way Forward?

1. State funding of Elections- The **Indrajit Gupta Committee on State Funding of Elections** has supported partial state funding of recognised political parties. State funding has proved its effectiveness in a number of countries like Germany, Japan, Canada, Sweden etc.

2. Explore setting up of National Electoral Fund- An alternative to electoral bonds is a National Electoral Fund to which all donors can contribute. The funds can be **allocated to political parties in proportion to the votes** they get. This will protect the identity of donors. Apart from that, it would also weed out black money from political funding.

3. Capping of anonymous donations to political parties- **The Law Commission of India in its 255th Report** has recommended to cap the entire donation received through anonymous sources at Rs. 20 crores or 20% of the total funding of a political party.

4. A complete ban on cash donations- One of the transparency measures for political funding is to put a **complete ban on cash donations** by individuals or companies to political parties. At present, political parties can receive cash donation below Rs.2000.

5. Audit of accounts of political parties- **Venkatachaliah Committee Report (2002)** has recommended strict regulatory frameworks for auditing and disclosure of party income and expenditure.

6. Learning and implementing global best practices- **France** banned all forms of corporate funding in 1995 and capped individual donations at 6,000 Euros. **Brazil and Chile** have also banned corporate donations after a series of corruption scandals emerged related to corporate funding.

Law Commission's Recommendations on Electoral Finance (255th Report)

- Extend regulation of election expenses from date of nomination to **date of notification**.
- Authorization of political funding by a corporate should be done at the Annual General Meeting (AGM) and not Board of Director (BoD) meeting.
- Extension of norms of disclosures by candidates about their election expenses including funding received from non-Government corporate or a person and from the parent political party.
- **Public disclosure of electoral expenses documents** submitted by the candidates.
- Submission of **audited annual reports** by Political Parties detailing all the funds received and the expenditure incurred which shall be **disclosed publicly** by the ECI.
- **Disclose contributions** less than INR 20,000 if such contributions exceed INR 20 crore or 20% of the party's total contributions, whichever is less.
- Failure to disclose expenses results in disqualification for 3 years. This should be **extended to 5 years** to render the candidate ineligible for next election.
- **Penalty of 5 times the contribution received**, if such contribution is received from an ineligible donor under Companies Act and RoPA.
- **State funding of elections not feasible**. In-kind subsidies should be provided.

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Conclusion

A **clean & transparent electoral funding** process is vital to ensure a fair electoral democracy. Most developed countries in the West have robust mechanisms to ensure transparency in their political systems. As India aspires to emulate the West by setting the ambition of achieving developed country status by 2047, it must aspire for similar standards of transparency in the political sphere. **Cleaning up electoral finance** can be the first step in this regard.

Read More- Indian Express

Syllabus- GS-2 -Salient Features of the Representation of People's Act.