

7 PM COMPILATION

August, 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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16th Finance Commission: Explained, pointwise

Introduction

The 16th Finance Commission is due to be set up shortly to determine how much of the Centre's tax revenue should be given away to States (the vertical share) and how to distribute that among States (the horizontal sharing formula). Many critical changes have taken place since the constitution of the Fifteenth Finance Commission in November 2017 that includes COVID-19 and the subsequent geopolitical challenges.

What is the Finance Commission?

The Finance Commission is constituted by the President under Article 280 of the Constitution, mainly to give its recommendations on distribution of tax revenues between the Union and the States and amongst the States themselves.

Two distinctive features of the Commission's work involve redressing the vertical imbalances between the taxation powers and expenditure responsibilities of the centre and the States respectively and equalization of all public services across the States.

It is the duty of the Commission to make recommendations to the President as to—

1. the distribution between the Union and the States of the net proceeds of taxes which are to be, or may be, divided between them and the allocation between the States of the respective shares of such proceeds;
2. the principles which should govern the grants-in-aid of the revenues of the States out of the Consolidated Fund of India;
3. the measures needed to augment the Consolidated Fund of a State to supplement the resources of the Panchayats in the State based on the recommendations made by the Finance Commission of the State;
4. the measures needed to augment the Consolidated Fund of a State to supplement the resources of the Municipalities in the State based on the recommendations made by the Finance Commission of the State;
5. any other matter referred to the Commission by the President in the interests of sound finance.

Over the years the core mandate of the Commission has remained unchanged, though it has been given the additional responsibility of examining various issues. For instance, the 12th Finance Commission evaluated the fiscal position of states and offered relief to those that enacted their Fiscal Responsibility and Budget Management laws. The 13th and the 14th Finance Commissions assessed the impact of GST on the economy. The 13th Finance Commission also incentivised states to increase forest cover by providing additional grants.

Why is there a need for an FC?

Resolving vertical fiscal imbalance:

Vertical fiscal imbalance occurs due to the asymmetry in the constitutional scheme of assignment of resources and responsibilities between the central and the state governments.

The central government has been assigned a relatively larger share in the collection of tax revenues, while the state governments have relatively larger expenditure responsibilities.

Reducing horizontal fiscal imbalance:

Horizontal fiscal imbalances arise from the inter-state differences in tax bases and due to the varied ground conditions of the states regarding needs and costs of provision of public goods.

LPG Reforms:

In the pre-reform period, the Finance Commission's recommendations were relatively less significant. The Central government had alternative methods to provide compensation to States through plan financing and investments in public sector undertakings (PSUs).

However, after the reforms, the frequency of new PSU investments decreased, and the Planning Commission was abolished in 2014. Consequently, the Finance Commission has become the primary authority responsible for shaping India's fiscal federalism.

What are a few of the successful recommendations made by the Finance Commissions?

Over the years, Finance Commissions have made various impactful recommendations concerning public finance, governance, and development in India. Here are some successful examples:

6. Introducing tax devolution as a major component of vertical transfers, gradually increasing the states' share from 10% to 42% over time.
7. Implementing performance-based incentives for states to promote fiscal discipline, population control, forest conservation, power sector reforms, and other crucial initiatives.
8. Establishing disaster relief funds for states and local bodies to enhance their preparedness and response capabilities for natural calamities.
9. Introducing grants for local bodies to strengthen their fiscal autonomy and accountability in delivering essential services.
10. Introducing grants for specific sectors like health, education, justice delivery, and statistical systems, addressing critical gaps and needs in these areas.

What are the challenges that Finance Commissions face?

Lack of compliance: Both the Union and state governments sometimes overlook or ignore the recommendations. They may not agree with them or have other priorities.

Complex reforms: Some of the suggested reforms can be complicated to implement. They require significant changes in government processes and policies.

Resource constraints: The governments, particularly at the state level, might face resource constraints. This can make it hard for them to put the recommendations into practice.

Policy prioritization: The governments often focus more on resource distribution. The recommended reforms may not align with their policy priorities.

Conditionalities: Some states object to the conditions attached to grants. They believe these restrictions limit their expenditure options.

Insufficient data: There can be a lack of necessary data to implement the recommendations. For instance, the 13th FC pointed out statistical gaps that hindered implementation.

Performance-Based Grants: The 15th FC proposed performance-based grants. However, this requires the establishment of clear and efficient performance metrics, which can be challenging.

What are some novel challenges before the 16th Finance Commission?

Impact of Covid-19 Pandemic: The 16th Finance Commission must consider the repercussions and consequences of the pandemic on the fiscal condition and performance of both the Central and State governments. Additionally, the Commission needs to factor in their respective expenditure requirements and priorities.

The GST Council: The decisions made by the GST council can impact on the revenue projections and calculations undertaken by Finance Commissions when distributing fiscal resources.

What are the key areas that the 16th FC should prioritize?**Cesses and surcharges:**

The effective share of States in the Center's gross tax revenues (GTR) declined from nearly 35% during 2015-16 to 2019-20, to approximately 31% between the fiscal years 2020-21 and 2023-24 (BE).

This decline was primarily attributed to a significant increase in the share of non-shareable cesses and surcharges in the Center's GTR which increased to 18.5% of the GTR during 2020-21 to 2023-24 (BE) from 12.8% during 2015-16 to 2019-20.

Horizontal distribution:

Historically, Finance Commissions have struggled to determine how much a state's deficit is due to its fiscal incapacity and how much is due to fiscal irresponsibility.

They have tried to modify the distribution formula to support deficit States without penalizing responsible States which is impossible as the total funds for distribution are limited. Every horizontal distribution formula has been criticized as being inefficient or unfair or both.

The concept of horizontal distribution inherently involves wealthier States providing compensation to poorer States. Ensuring this process doesn't exacerbate the divide between the rich and poor states presents a challenge for the government when defining the terms of reference for the Finance Commission.

Per capita income criteria:

The share of individual States in the Centre's divisible pool of taxes is determined by a set of indicators. Per capita income is one of the criteria. Per capita income is the distance of a State's per capita income from a benchmark. It is usually determined by the average per capita income of the top three States.

This criterion ensures relatively larger shares for relatively lower income States. At present, it has the highest weight of 45%. Many of the richer States want a lower weight for this criterion.

But it is essential to consider the requirements of the lower-income States. These States will have a greater contribution to India's 'demographic dividend' in the future.

Restraining freebies:

In theory, the restraints imposed by the Fiscal Responsibility and Budget Management (FRBM) Act should have acted as a check on populist spending.

But governments have found inventive ways of raising debt without it appearing in the budget books.

The 16th Finance Commission should lay down guidelines on the spending on freebies in the interest of long-term fiscal sustainability.

Equalisation provision:

It is essential to give priority to equalising the provision of education and health services in the overall framework of resource transfers.

Resource allocation to individual States could be guided by the equalisation principle, by utilising a limited number of criteria such as population, area, and distance.

Debt burden of centre and states:

The combined debt-GDP ratio of central and State governments peaked at 89.8% in 2020-21. Centre's debt-GDP ratio is 58.7%, and it is 31%.for states.

These numbers show improvements. But it was still above the corresponding FRBM norms of 40% and 20%.

What should be the way forward?

The Finance Commission should make recommendations that are simpler and more practical. It should also work with governments to understand and overcome their challenges.

Governments should prioritize these recommendations, gather needed resources, adjust grant conditions, and fill data gaps.

The 16th Finance Commission should lay down guidelines for when cesses and surcharges might be levied. It should suggest a formula to cap the amount that can be raised.

A mechanism is necessary for Finance Commissions to reevaluate their figures in response to the decisions made by the GST Council, or vice versa.

A loan council can be set up. It was recommended by the Twelfth Finance Commission. It should keep a watch on the loan magnitudes and profiles of the central and State governments.

The 16th Finance Commission should take a firm stance on States adhering to fiscal deficit limits. It can offer incentives to States that maintain fiscal discipline and penalties for those exceeding the fiscal deficit limits.

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

Indian Institute of Management (Amendment) Bill, 2023: Explained, pointwise

Introduction

Recently, the Indian Institute of Management (Amendment) Bill, 2023 was introduced in Lok Sabha. The Bill comes six years after the IIM Act, 2017 which declared the 20 IIMs across the country as "institutions of national importance" and conferred them with greater autonomy in both administration and academic functioning. The Bill represents the government's reconsideration of the autonomy of IIMs.

How are IIMs governed at present?

IIMs are registered as societies under the **Societies Registration Act, 1860** (or State Societies Registration Acts). Each society has a Memorandum of Association and rules specifying its objectives and the system of governance.

Currently, IIMs are allowed greater autonomy to be run by its **board of governors**, with each institute having 19 members including only one representative each from central and state governments.

The board has the power to take policy decisions related to the administration and working of the institutes. The chairperson of the board of governors is appointed by the board itself.

The board of governors is the **highest decision-making body** of each IIM. It has power to appoint search-cum-selection panels for appointments of new directors as well as decide their pay, create posts, establish departments, approve annual budgets and determine fees.

The **Director, who is the Chief Executive Officer** of the Institute, is appointed out of the panel of names recommended by a search-cum-selection committee constituted by the Board. The Board chairperson heads the search-cum-selection committee.

What are the issues with the current governance system?

Accountability issues: The 2017 Act requires the Board of Governors of the IIMs to commission an independent review of the institutes at least once every three years and place the report in the public domain. But even after 6 years, very few of the 20 IIMs have done so.

Absence of norms on key matters: The absence of clear norms on key matters, such as the appointment of the dean, has been a matter of concern.

Governance: There are variations in the level of governance among different IIMs with some lower ranked IIMs being accused of becoming private “fiefdoms” in which the director holds unchecked power.

What are the key provisions of the Indian Institute of Management (Amendment) Bill, 2023?

Visitor: The Bill designates the President of India as Visitor of every Institute covered by the Act.

Appointment of IIM Directors: The Bill mandates the Board of Governors to obtain the prior approval of the Visitor before appointing an Institute Director. The procedure for selecting the Director will be prescribed by the central government.

Removal of IIM Directors: The Bill provides that the Board will require prior approval of the Visitor before removing a director. The Bill also grants the Visitor the authority to terminate the services of the Director, as may be prescribed.

Appointment of the Chairperson of the Board of Governors: The Bill stipulates that the Chairperson of the Board will be nominated by the Visitor.

Inquiries against IIMs: The Bill confers the power of inquiry upon the Visitor. Based on the report of such inquiries, the Visitor may issue directions which will be binding on the Institute. The Board may also recommend such inquiries to the Visitor.

Dissolution of the Board: The Bill provides that the central government may prescribe the conditions and procedure for dissolving or suspending an Institute's Board.

Co-ordination Forum: The Bill provides that the Chairperson of the Co-ordination Forum for all the Institutes will be nominated by the Visitor. Chairpersons of all Institutes will be ex-officio members of the Forum.

Balancing autonomy and accountability

The bill has raised concerns among IIMs about direct government control and a potential dilution of their independence. Critics argue that introducing the concept of Visitor in IIMs is a way for the government to exercise direct control.

But after the 2017 Act, the office of the Director became very powerful, and it has attracted controversy many times. For example, at IIM Calcutta, the majority of faculty signed a petition against the Director's way of functioning.

The director became accountable to a Board of Governors in which the two government nominees played a passive role. Individuals who comprise the rest of the Board have no stakes in their respective institutions and no incentive to exercise the necessary oversight.

Some experts believe that the IIM Act created a situation where there were no meaningful checks and balances on the director. The government claims it aims to fix accountability through the Indian Institute of Management (Amendment) Bill, 2023.

What is the significance of IIMs?

The IIMs (IIM Calcutta and IIM Ahmedabad) were established in the early 1960s to train suitable managers for the public sector enterprises being established in pursuance of the Industrial policy.

Since then, more IIMs have been set up across different cities in India, each contributing to the growth and development of the nation.

IIMs contribute to the socioeconomic development of India by promoting entrepreneurship, supporting rural development initiatives, and conducting research that addresses societal challenges.

IIMs have been instrumental in shaping India's business landscape by producing exceptional business leaders, fostering innovation and entrepreneurship, and facilitating strong industry-academia collaborations.

What are the challenges IIMs facing?

Shortage of faculty: 493 teaching positions need to be filled up in the Indian Institutes of Management (IIMs) out of the sanctioned strength of 1566 (December 2022).

Research output: IIMs have lagged behind leading global business schools in publishing papers in internationally peer-reviewed management journals. The quantity and quality of research carried out in the IIMs has been inadequate.

Rising course fees: There has been a relentless rise in the fee for the MBA course, which is not related to the costs of the course.

Conclusion

The idea that government control is antithetical to the functioning of an educational institution is flawed. Government control has not kept the IITs from creating a brand that is way above that of the IIMs. The IIM brand itself flourished for six decades under government control because the IIMs enjoyed the fullest autonomy in all operational matters. It is the prospect of the brand being undermined by unaccountable boards and directors that should be a matter of concern. No public institution can be exempt from the principle of democratic accountability. And accountability to government and Parliament is preferable to no accountability at all.

Sources: [The Hindu](#), [Indian Express](#), [PRS](#)

E20 blending: Explained, pointwise

Introduction

Currently, a 10 per cent ethanol blend with petrol (E10) is available in India. The National Policy on Biofuels 2018, set an indicative target of 20% ethanol blending (E20) under the Ethanol Blended Petrol (EBP) Program by 2030. However, in 2021, the deadline was preponed to 2025-26 after the NITI Aayog released the expert committee report on ethanol blending titled 'Roadmap for Ethanol Blending in India 2020-25'.

E20 is a biofuel that has been gaining in popularity due to its environmental and economic benefits. E20 biofuel is a blend of 20% ethanol, which is derived from renewable sources such as corn, sugarcane, and other plant materials, and 80% traditional petroleum-based fuels.

What is the Ethanol Blended Petrol (EBP) Program?

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

The procedure of procurement of ethanol under the EBP has been simplified to streamline the entire ethanol supply chain and remunerative ex-depot price of ethanol has been fixed.

To facilitate achieving new blending targets, a "grid" which networks distilleries to OMC depots and details quantities to be supplied has been worked out.

What is the need for E20 blending?

Energy security: India depends on imported fuel to meet its energy needs. In 2021-22, 86 percent of consumed fuel was imported. With such high import dependence, the country becomes highly vulnerable to global events like the Russia-Ukraine war or decisions of OPEC countries. Ethanol blending can reduce this dependence. The resultant reduced demand for fuel could save India about \$4 billion annually.

Reducing emissions: Ethanol is a lesser pollutant. Use of ethanol-blended petrol decreases emissions such as carbon monoxide, hydrocarbons and nitrogen oxides. Higher reductions in CO emissions were observed with E20 fuel — 50 per cent lower in two-wheelers and 30 per cent lower in four-wheelers.

Extra income: The alternative use-case of sugarcane will help the farmers realize more income from their produce. Under Ethanol Blending Program, Oil Marketing Companies (OMCs) have paid sugar mills nearly Rs 81,796 crore for ethanol supplies in the last seven years (till 2022), which has helped mills to clear farmers' dues.

What are the challenges in achieving E20 blending?

Feedstock availability is a major challenge for ethanol blended fuel. Sugarcane is going to be the central and most reliable source of ethanol supply in the country. But the current surpluses in the crop may not continue into the future. In 2020, the Indian Sugar Mills Association (ISMA) revised its cane production estimate downwards thrice. Also, no surplus maize might be available for ethanol production if the growth of both food, feed and starch industry continues. In the case of rice, there emerges to be a trade-off between exports and rice for ethanol. Exports will have to be reduced to make space for oil marketing companies (OMCs) seeking rice for ethanol.

Infrastructure: Sugarcane is locally available in only some parts of India; thus, the supply chain needs to be strengthened to accomplish the Interstate movement of ethanol. There is a need to build extensive infrastructure for storage, transportation, and distribution of ethanol from the three states that produce it, Uttar Pradesh, Maharashtra, and Karnataka, to the rest of the country.

Modifying existing petrol engines to use E20: The estimated petrol vehicles stock in India is 212.7 million as of March 31, 2023, of which two-wheelers comprised 176.2 million, three-wheelers 21.8 million, and four-wheelers 14.7 million. The modifications mean significant costs and would need many skilled technicians. It will probably take years, creating considerable disruption in the economy.

Effluents: Higher ethanol production means more effluents that need mitigation. Vinasse is an organic waste of which 12 to 20 units are produced for each unit of ethanol from sugarcane. Grain produces half as much. Its treatment before disposal or use continues to be a complex struggle.

What are the advantages of biofuels?

Reduced dependence on fossil fuels: Biofuels, produced from renewable sources like food crops, can help reduce reliance on finite fossil fuels, thereby lowering greenhouse gas emissions and mitigating climate change.

Renewable energy source: Unlike non-renewable fossil fuels, food crops can be replanted and harvested annually, making biofuels a renewable energy source.

Support for agriculture: Growing food crops for biofuels can provide additional income to farmers and contribute to rural development.

Technological advancement: The development of biofuel technologies encourages research and innovation in the renewable energy sector.

What are the disadvantages of biofuels?

Food scarcity and rising prices: Diverting food crops for biofuel production can reduce the availability of these crops for human consumption, potentially leading to food scarcity and higher prices for food items.

Environmental impact: While biofuels are generally considered more environmentally friendly than fossil fuels, their production can still have negative impacts, such as deforestation, habitat destruction, and excessive water usage.

Competition for land: Growing crops for biofuels can compete with land needed for food production or conservation purposes, leading to deforestation and biodiversity loss.

Energy efficiency and emissions: Some biofuels may have low energy efficiency and still produce significant greenhouse gas emissions during their production and transportation, diminishing their environmental benefits.

Water resources: Large-scale cultivation of biofuel crops can put strain on water resources, potentially leading to water scarcity in some regions.

What should be the way forward to achieve E20 blending?

The country's commendable efforts to decrease fuel import reliance through its E20 mission are notable. However, the ambitious target of achieving this by 2025-26 raises concerns about potential challenges related to competition for crop and land resources between fuel and food crops. To ensure a reliable supply of feedstock for the distilleries, it is crucial to **devise a careful roadmap** that addresses these issues effectively.

India continues to have one of the largest populations of undernourished individuals globally, necessitating the expansion of acreages for pulses, oilseeds, and horticulture crops. **Enhancing crop yields** is of utmost significance, and this encompasses advancements in seeds and production techniques, particularly when these crops will be utilized for biofuel production.

Initiating a **land-use plan** would be beneficial. In the long run, it is essential to avoid using the existing crop land for fuel production. India has already experienced a decline in arable land. **Fallow land** increased by approximately 4.3 million hectares between 1978-79 and 2018-19. This land should be prioritised for producing crops for fuel.

Feedstock such as wheat straw, corn, wood, agricultural residues or municipal solid waste are typically lingo-cellulosic materials and are used as a source of bioethanol in second generation (2G) technology. The 2G technologies use crop residues, a waste that otherwise would be of no value. Therefore, more research and development efforts should be made to **make the 2G technologies commercially viable**.

There should not be a trade-off between achieving food and energy security. As both are critical, a strategic and a cohesive roadmap is the need of the hour.

Sources: [Livemint](#), [Business Standard](#), [The Print](#)

Age of consent: Explained, pointwise

Introduction

Recently, the Bombay High Court said that it is high time India considered reducing the age of consent for sex. The court pointed out that after the enactment of the Protection of Children from Sexual Offences (POCSO) Act, 2012, many adolescents are being prosecuted for consensual relationships with minor girls. While the Supreme Court and several High Courts have underlined concerns over criminalisation of adolescent sex, the 22nd Law Commission of India

is set to release its report on the minimum age of consent under the POCSO Act. These developments have revived the debate about the revision of the age of consent in India.

What is age of consent?

'Age of consent' refers to the legally defined age at which an individual is considered capable of granting consent for sexual activities. The age of consent was 16 prior to the enactment of POCSO Act.

The POCSO Act categorizes any sexual acts involving individuals under 18 as criminal offenses, irrespective of whether actual consent exists between the minors.

This is based on the legal presumption that individuals below 18 are incapable of providing consent in the legal context.

What are the salient features of POCSO Act?

The POCSO Act was passed in 2012. The Act was further amended in 2019 to introduce more stringent punishments, including the death penalty, for committing sexual crimes against children. This was done to deter perpetrators and prevent such crimes.

Following are the salient features of the Act:

- "Children" according to the Act are individuals aged below 18 years. The Act is gender-neutral.
- The Act defines different forms of sexual abuse including but not limited to sexual harassment, pornography, and penetrative & non-penetrative assault.
- The Act stipulates that such steps must be taken which makes the investigation process as child-friendly as possible and the case is disposed of within one year from the date of reporting of the offense.
- The Act provides for the establishment of Special Courts for the trial of such offenses and matters related to them.
- Section 42 A of the Act provides that in case of inconsistency with provisions of any other law, the POCSO Act shall override such provisions.
- The Act calls for mandatory reporting of sexual offenses. A false complaint with intent to defame a person is punishable under the Act.

Read more: [What is the POCSO Act?](#)

What are the judgements of various High Courts?

In **Vijayalakshmi vs State (2021)** the Madras High Court stated that punishing an adolescent boy, who enters into a relationship with a minor girl by treating him as an offender, was never the objective of POCSO Act.

In 2021, the Delhi High Court in **AK v. State Govt of NCT of Delhi** stated that the intention of POCSO was to protect children below the age of 18 years from sexual exploitation and not to criminalise romantic relationships between consenting young adults.

In **Dharmendra Singh v State Govt of NCT (2020)**, the Delhi High Court has attempted to increase the chances of bail of an accused by issuing guidelines that pertain to close-in-age exemptions, available in statutory rape cases in most US states. Also known as the Romeo-Juliet

law, it provides a degree of protection to the offender where the age difference between him and the victim is within the stipulated limit.

A bench of Karnataka High Court urged the Law Commission of India to have a rethink on the criteria for age of consent, taking into consideration the ground realities.

Recent judgements

11. The Delhi High Court released a 25-year-old accused on bail on the premise that the 15-year-old girl had eloped with him on her own.
12. The Bombay High Court quashed the conviction of a 25-year-old man under POCSO on the grounds that he had consensual sex with the 17-year-old girl.
13. The Madras High Court not only quashed an FIR registered under POCSO and consequential criminal proceedings, but also directed the Director General of Police to produce the reports of all such pending cases before the Court.
14. The Madhya Pradesh High Court quashed an FIR registered under POCSO and all criminal proceedings on the basis that the sexual relationship was consensual. The Court recommended that the Indian government consider reducing the age of consent of the female prosecutor from 18 to 16 years.

What are the issues with current age of consent?

Tool to control girls: An analysis of romantic relationships from Assam, Maharashtra and West Bengal revealed that in 80% of cases, the girls' family lodged a complaint under POCSO when she had eloped with a partner or a pregnancy came to light. At least 17 High Courts across the country have quashed cases of consensual relationships under POCSO Act. Women's rights activists claim that the POCSO Act has become a tool for families to control girls, especially where inter-faith and inter-caste relationships are involved.

Victimisation of the "consenting" girl: POCSO, Medical Termination of Pregnancy act and the Child Marriage Act create a complex socio-legal web. This deprives the minor girl of the rights to dignity, liberty, sexual and reproductive health, and undermines her privacy.

Ignores social reality: The criminalization of adolescent sexuality ignores social reality. According to the NFHS-5, for instance, 39 per cent women had their first sexual experience before turning 18. NFHS-5 also provides additional evidence of sexual engagement among unmarried adolescent girls. It reports contraception use by 45 per cent of unmarried girls in the age group of 15-19 years.

Burden on courts: The number of juveniles (especially those between the ages of 16 and 18) apprehended under the POCSO Act in the country has seen a staggering jump of 180 per cent between 2017- 2021 according to the National Crime Records Bureau's report. The data says that in 2021, 53,873 cases were filed under the Act, and these cases formed 36 per cent of all crimes against children. Officials and activists say that slapping Pocso cases on cases of adolescent love affairs is clogging the system, which already has too many pending cases to deal with.

What should be the way forward?

There is need to evolve a **separate procedure for children** while dealing with POCSO cases.

The Bureau of Police Research and Development could **analyse the cases of consensual sex**, age-wise, across States and help the Central government in taking a decision of reducing the age of consent based on that study.

Some **leverage should be allowed to the judiciary to interpret consent** in cases of the victim being of lower age based on the child's understanding of consequences.

The Supreme Court must step in to quickly resolve the gap between the laid down law (as understood by the investigating agencies) and the different interpretations by the High Courts.

The **severe punishments under POCSO should be re-examined** to ensure that they are deterrents but not excessively harsh.

Conclusion

The courts have rightly said that it is high time the legislature looked into the grey area resulting in criminalising consensual teenage relationships, by reducing the age of consent from 18 to 16 years. This will ensure reforms and access to sexual and reproductive health services to adolescents, along with comprehensive sex education to help them make informed decisions.

Sources: The Hindu ([Article 1](#) and [Article 2](#))

Import restrictions: Explained, pointwise

Introduction

The government has recently imposed restrictions on the import of laptops, tablets, and personal computers. According to a notice issued by the Directorate General of Foreign Trade, the import of electronic goods falling under HSN 8471 (a category) will now be classified as "Restricted," allowing imports only against valid licenses for restricted imports. Earlier, imports were allowed without restrictions. This sudden policy reversal warrants a discussion on import restrictions.

Note: Under Section 3 of the Foreign Trade (Regulation and Development) Act, 1992, the Central Government is empowered to make provisions related to imports and exports.

What are some recent instances of import restrictions?

Laptops, tablets, and personal computers: To promote domestic manufacturing and boost national security by curbing imports from China. The items under licensing accounted for about \$8.8 billion of imports in 2022-23, about three-fifths of it from China.

Gold jewelry and articles: In July 2023, the government restricted imports of certain gold jewelry and articles to control swelling trade deficit.

Pneumatic Tyres: In June 2020, the government had imposed curbs on the imports of certain pneumatic tires due to continuing rise in import of tires from China. The decision was made to promote domestic manufacturing.

Colour televisions: In July 2020, the government had imposed restrictions on imports of colour televisions. This was aimed at promoting domestic manufacturing and cut inbound shipments of non-essential items from countries like China.

What are the WTO rules on import licensing?

The **WTO Agreement on Import Licensing Procedures** (Import Licensing Agreement) sets out rules for all Members on the use of import licensing systems to regulate their trade.

The agreement's main purpose is to promote **transparency, predictability, and fairness** in the administration of import licensing procedures.

The agreement aims to **prevent the arbitrary use of import licensing** by member countries, which could potentially create barriers to trade and undermine the principles of the WTO.

The agreement says import licensing should be **simple, transparent and predictable**. For example, the agreement requires governments to publish sufficient information for traders to know how and why the licences are granted.

It also describes how countries should **notify the WTO** when they introduce new import licensing procedures or change existing procedures.

The agreement offers guidance on how governments should assess applications for licenses.

WTO provides certain **exceptions and flexibilities** to its member countries which allow members to take certain measures that might otherwise be considered trade-restrictive under specific circumstances.

Article XXI of the GATT allows members to take measures that they consider necessary for the protection of their essential **security interests**.

Article XII of the GATT allows members to impose restrictions on trade to safeguard their external financial position and **balance of payments**.

What are the positive impacts of import restrictions?

Self-reliance: One of the main goals of import restriction policies is to protect domestic industries from foreign competition. By making it more difficult to import goods, these policies can help to level the playing field for domestic businesses. This can allow them to grow and prosper.

Job creation: Import restrictions can also help to create jobs in the domestic economy. By making it more difficult for businesses to import goods, these policies can encourage businesses to produce these goods domestically. This can lead to an increase in employment as businesses expand their operations.

National Security: If a nation becomes reliant on international imports, it also becomes defensively weak due to the possibility of disruption of critical supplies. Import restrictions and substitution is used as a policy tool so that a country is largely self-reliant in order for it to be able to react in a time of war. In case of electronics, there is also possibility of exposure to hidden spyware.

What are the negative impacts of import restrictions?

Higher prices: Import restrictions can affect the final price of a product as it can limit the supply and competition. Consumers will have to buy from more expensive domestic suppliers. Because the supply is limited, the level of demand will drive up prices.

Harm domestic industries: Domestic industries neither get the opportunity nor the incentive to grow due to lack of competition. This means more and more dependence on protectionist policies for survival. Once these policies are in place, it could get difficult to remove them.

Transfer of welfare: The Indian experience of pre 1991 reforms suggests that state support for enterprise can remain longer than needed as sunset clauses are rolled over, resulting in a net transfer of welfare from people to favoured parties.

Stagnation of technological advancements: As domestic producers don't need to worry about foreign competition, they have no incentive to innovate or spend resources on research and development (R&D) of new products.

Rollback from 1991 liberalisation: Import licensing could increase the space for bureaucratic discretion. Such controls on economic activities will only diminish the vibrancy of the economy that was unleashed after the '91 reforms.

Global image: The world needs a reliable supply chain and there is a growing global trust in India. But arbitrary and inconsistent restrictions will undermine the country's efforts to entice value chains away from China.

What should be the way forward?

The government should focus on creating conditions that **encourage integration of India with global value supply chains** and take advantage of the 'China plus one' approach being adopted by many multinationals.

Trade relations have acquired a geopolitical dimension and opportunities should be grabbed while global value chains move away from China.

Once a global edge is achieved for domestic industries, public support should be rolled back and the focus should be on promoting exports.

The emphasis should be placed on **fostering innovation, advancing research and development, and promoting entrepreneurship** within the nation. These efforts will equip Indian enterprises to effectively vie in the industries that will define the future.

A trade policy that is both **clear and consistent** is needed attract multinationals to Make in India.

Strengthen domestic manufacturing while also prioritizing export growth and fostering research to achieve greater self-reliance.

Trade barriers must be deployed with caution. Import licensing but could work for India if wielded well as part of a strategy for local manufacturing.

Sources: [Business Standard](#), [Times of India](#), [Indian Express](#)

Digital Personal Data Protection Bill, 2023: Explained, pointwise

Introduction

Recently, the Digital Personal Data Protection Bill, 2023, was introduced in Parliament. The Bill was tabled after nearly five years of negotiations involving the government, technology companies and civil society representatives. It lays out procedures on how corporations and the government itself can collect and use information and personal data of India's citizens.

What was the need for the Digital Personal Data Protection Bill, 2023?

Personal data is information that relates to an identified or identifiable individual. Businesses as well as government entities process personal data for delivery of goods and services.

Processing personal data allows understanding preferences of individuals, which may be useful for customisation, targeted advertising, and developing recommendations. Processing personal data may also aid law enforcement.

Unchecked processing may have adverse implications for the privacy of individuals, which has been recognised as a fundamental right. It may subject individuals to harm such as financial loss, loss of reputation, and profiling.

As technologies like Artificial Intelligence advance and permeate various aspects of daily lives, the potential for extensive data collection, analysis, and manipulation grows exponentially.

Without effective data protection measures, individuals' personal information is at risk of being exploited, leading to privacy breaches, identity theft, and other malicious activities.

Currently, India does not have a standalone law on data protection. Use of personal data is regulated under the Information Technology (IT) Act, 2000.

In the Puttaswamy judgement of 2017, the Supreme Court upheld the right to privacy, In the same year, the government constituted the Justice B. N. Srikrishna committee on Data Protection to examine issues relating to data protection in the country. The Committee submitted its report in 2018.

Based on the recommendations of the Committee, the Personal Data Protection Bill, 2019 was introduced in Lok Sabha. The Bill was referred to a Joint Parliamentary Committee which submitted its report in December 2021.

In August 2022, the Bill was withdrawn from Parliament. In November 2022, a Draft Bill was released for public consultation. In August 2023, the Digital Personal Data Protection Bill, 2023 was introduced in Parliament.

What are the key features of the Digital Personal Data Protection Bill, 2023?

Applicability: The Bill applies to the processing of digital personal data within India where such data is: (i) collected online, or (ii) collected offline and is digitised. It will also apply to the processing of personal data outside India if it is for offering goods or services in India.

Consent: Personal data may be processed only for a lawful purpose after obtaining the consent of the individual. Notice must be given before seeking consent. Consent may be withdrawn at any point in time. Consent will not be required for 'legitimate uses' defined in the Bill. For individuals under 18 years of age, consent will be provided by the parent or the legal guardian.

Rights of data principal: An individual whose data is being processed (data principal), will have the right to: (i) obtain information about processing, (ii) seek correction and erasure of personal data, (iii) nominate another person to exercise rights in the event of death or incapacity, and (iv) grievance redressal.

Duties of data principal: Data principals will have certain duties. They must not: (i) register a false or frivolous complaint, and (ii) furnish any false particulars or impersonate another person in specified cases. Violation of duties will be punishable with a penalty of up to Rs 10,000.

Obligations of data fiduciaries: The entity determining the purpose and means of processing, (data fiduciary), must: (i) make reasonable efforts to ensure the accuracy and completeness of data, (ii) build reasonable security safeguards to prevent a data breach, (iii) inform the Data Protection Board of India and affected persons in the event of a breach, and (iv) erase personal data as soon as the purpose has been met and retention is not necessary for legal purposes (storage limitation). In the case of government entities, storage limitation and the right of the data principal to erasure will not apply.

Transfer of personal data outside India: The Bill allows transfer of personal data outside India, except to countries restricted by the central government through notification.

Exemptions: Rights of the data principal and obligations of data fiduciaries (except data security) will not apply in specified cases. The central government may, by notification, exempt certain activities from the application of the Bill. These include: (i) processing by government entities in the interest of the security of the state and public order, and (ii) research, archiving, or statistical purposes.

Data Protection Board of India: The central government will establish the Data Protection Board of India. Key functions of the Board include: (i) monitoring compliance and imposing penalties, (ii) directing data fiduciaries to take necessary measures in the event of a data breach, and (iii) hearing grievances made by affected persons. Board members will be appointed for two years and will be eligible for re-appointment. Appeals against the decisions of the Board will lie with TDSAT (Telecom Disputes Settlement and Appellate Tribunal).

Penalties: The schedule to the Bill specifies penalties for various offences such as up to: (i) Rs 200 crore for non-fulfilment of obligations for children, and (ii) Rs 250 crore for failure to take security measures to prevent data breaches. Penalties will be imposed by the Board after conducting an inquiry.

What are the concerns related to the Digital Personal Data Protection Bill, 2023?

Exemptions: The Supreme Court in Puttaswamy judgement has held that any infringement of the right to privacy should be proportionate to the need for such interference. Exemptions for the State may lead to data collection, processing, and retention beyond what is necessary. This may not be proportionate and may violate the fundamental right to privacy.

Risk of surveillance: The Bill empowers the central government to exempt processing by government agencies from any or all provisions, in the interest of the security of the state and maintenance of public order. The Bill does not require government agencies to delete personal data, after the purpose for processing has been met. Using the above exemptions, on the ground of national security, a government agency may collect data about citizens to create a 360-degree profile for surveillance.

Regulating harm arising from processing of personal data: The Bill does not regulate risks of harms arising out of processing of personal data. The Srikrishna Committee has observed that harm is a possible consequence of personal data processing. Harm may include material losses such as financial loss and loss of access to benefits or services. It may also include identity theft, loss of reputation, discrimination, and unreasonable surveillance and profiling.

Right to data portability and the right to be forgotten not provided: The Bill does not provide for the right to data portability and the right to be forgotten. The 2018 Draft Bill and the 2019 Bill introduced in Parliament provided for these rights. The Joint Parliamentary Committee, examining the 2019 Bill, recommended retaining these rights. The Srikrishna Committee observed that a strong set of rights of data principals is an essential component of a data protection law. These rights are based on principles of autonomy, transparency, and accountability to give individuals control over their data.

Cross-border transfer of data: The Bill provides that the central government may restrict the transfer of personal data to certain countries through a notification. This implies the transfer of personal data to all other countries without any explicit restrictions. This mechanism may not provide adequate protection. In the absence of robust data protection laws in another country, data stored outside India may be more vulnerable to breaches or unauthorised sharing with foreign governments as well as private entities.

Independence of the Data Protection Board: A short term appointment (2 years) with the scope for re-appointment may affect the independent functioning of the Board. In the case of Tribunals, the Supreme Court (2019) had observed that short-term along with the provisions of re-appointment increases influence and control of the Executive.

Provisions for children: Under the Bill, a child has been defined as a person under 18 years of age. In other jurisdictions like the USA, UK and European Union, the age varies from 13 to 16 years. The Bill requires all data fiduciaries to obtain verifiable consent from the legal guardian before processing the personal data of a child. A sizable number of children will need to seek parental consent for services they can easily access right now. There are questions about how data processing entities will verify the age of children and obtain parental consent. If every data fiduciary will have to verify the age of everyone signing up for its services, anonymity in the digital sphere may be reduced.

What are the positive aspects of the Digital Personal Data Protection Bill, 2023?

Understandable and accessible: The Bill is written in concise, straightforward and uncomplicated manner with minimum use of legal jargon and liberal use of illustrations. This makes it more understandable and accessible to the public.

Principles-based approach: Due to the pace of innovation and disruption in the tech sector, the Bill focusses on principles and outcomes rather than modes and processes. This will enhance the longevity of the bill and also give businesses flexibility in achieving compliance.

Light-touch approach: Businesses will benefit from the light-touch and facilitative approach of the Bill towards personal data protection. This signifies the trust reposed by the government in the private sector to act as responsible custodians of the personal data of their customers.

Impetus for startup ecosystem: The rationalized and minimally intrusive data protection regime will attract global tech investments. The Bill will be a boon for startups as they are to be

exempted from certain obligations, upon notification. This will provide further impetus to the startup ecosystem and boost its global competitiveness.

What is the data protection laws in other countries?

According to UNCTAD, 71 percent of countries had put in place legislation to secure the protection of data and privacy. Africa and Asia show different levels of adoption with 61 and 57 per cent of countries having adopted such legislation.

Read more: [What are the data protection laws in other countries?](#)

How India's proposed law is different from other jurisdictions?

Publicly available data exempt: The Bill does not protect data that is made publicly available by an individual or anyone else. Data protection norms around the world extend obligations to publicly available data too.

Consent managers are licensed: Consent managers will help individuals give and manage their consent, across different businesses. This is perhaps the first instance of a privacy law recognising and regulating such entities.

Cross-border data flows made flexible: The Bill allows data transfers outside India or offshore data processing. But in a departure from global regimes, the Bill does not set out any conditions for transferring data.

Children's data: Many global laws treat children under 13, and those between 13 and 17 differently, based on risks and harms. Under the Bill, all children under 18 are treated alike.

Conclusion

An all-encompassing digital governance framework goes beyond just having a strong data protection law. It necessitates addressing various interrelated aspects like cybersecurity, competition, artificial intelligence, and more. The European Union's strategy, which includes supplementary measures like the Data Act, Digital Services Act, Digital Markets Act, and the AI Act, offers valuable lessons in achieving comprehensive regulation in this regard.

Sources: [Times of India](#), [Indian Express](#), [Livemint](#), [PRS](#)

Critical Minerals in India and Mines and Minerals (Development & Regulation) Amendment Bill, 2023 : Explained, pointwise

Introduction

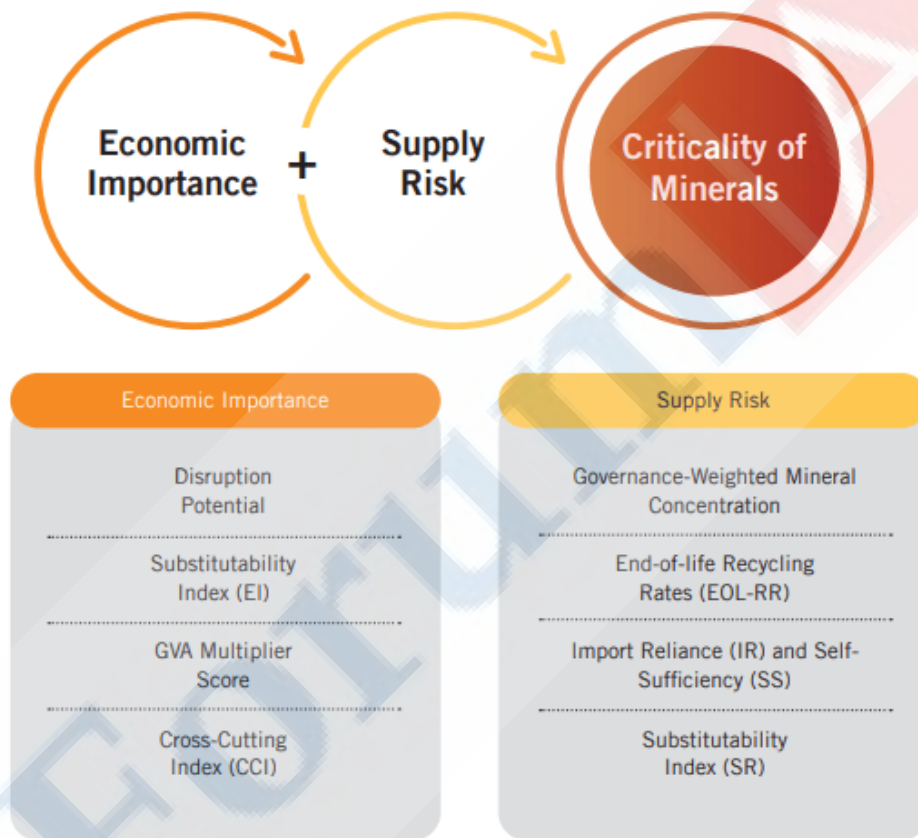
Critical minerals, in India and around the world, form the bedrock of contemporary technology. They are integral to the creation of products like solar panels, semiconductors, wind turbines, and advanced batteries used for storage and transportation. In essence, the shift towards renewable energy is impossible without these critical minerals. This is why securing their supply chain has become a top priority for leading economies.

Therefore, to create a sustainable supply chain of critical minerals, government has moved amendments to **Mines and Minerals (Development and Regulation) Act, 1957**, by Mines and Minerals (Development & Regulation) Amendment Bill, 2023. Let's have a discussion on the

availability of critical minerals in India and how the new bill will be helpful in maintaining the supply chain.

What are critical Minerals?

Each country has its own classification of critical minerals depending on levels of economic development, industry requirements, national interests and security concerns, technology, market changes and natural resource endowment. For most of the countries, the criticality is judged by **two main parameters, economic importance and supply risk**. In Indian context also, the same two parameters were taken into consideration.



As per the definition in the report by Ministry of Mines,

Critical minerals are those minerals which are essential for economic development and national security, the lack of availability of these minerals or even concentration of existence, extraction or processing of these minerals in few geographical locations may lead to supply chain vulnerability and disruption.

The **seven-member Committee** constituted by Ministry of Mines has **identified a set of 30 critical minerals** for India. These are Antimony, Beryllium, Bismuth, Cobalt, Copper, Gallium, Germanium, Graphite, Hafnium, Indium, Lithium, Molybdenum, Niobium, Nickel, PGE, Phosphorous, Potash, REE, Rhenium, Silicon, Strontium, Tantalum, Tellurium, Tin, Titanium, Tungsten, Vanadium, Zirconium, Selenium and Cadmium.

Present status of critical minerals in India

For the majority of the critical minerals, India is dependent upon other countries. For some of the critical minerals, India is 100% import dependent, as shown in the table below:

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

What are the Challenges of critical minerals supply?

Concentration of minerals: The extraction or processing of critical minerals is concentrated in a few geographical locations, leading to import dependency and potential supply chain disruptions. **For example,** China owns most of the cobalt mines in the Democratic Republic of Congo, which produces 70% of the world's cobalt. China also has the largest reserves of Rare Earth Elements (REEs), followed by Vietnam, Brazil, and Russia.

As presented in the table above, India is 100% import-dependent on countries including China, Russia, Australia, South Africa, and the U.S. for the supply of major critical minerals.

High Cost: Deep-seated minerals such as gold, silver, copper, zinc, lead, nickel, cobalt, platinum group elements (PGEs), and diamonds are harder and more costly to explore and mine compared to surface or bulk minerals. It forces India to import these minerals.

Global trade tensions, as seen in the case of US and China trade wars, have proved to be detrimental for the interest of India. It led to slow down of the global economy. In these tensions,

industries face policy uncertainty, which discourages their expansion and is detrimental for their economic interest.

The pandemic caused disruptions in the supply chain, affecting global trade and the supply of critical minerals to dependent nations like India. It also led to a temporary shortage of semiconductors.

The Russia-Ukraine war highlighted the vulnerability of global supply chains, demonstrating that no country should be entirely dependent on another for essential items. Russia is a significant producer of nickel, palladium, titanium sponge metal, and the rare earth element scandium, while Ukraine is a major producer of titanium.

Developing countries at loss: While the developed countries get out of crisis, it is the developing countries that suffer most from any global incidence. For instance, after Russia – Ukraine war, China and Russia became strategic partners, developed countries have created Minerals Security Partnership (MSP) and G7's Sustainable Critical Minerals Alliance. Developing countries will have to choose among them.

What is the Need of Critical Minerals?

They are essential for the transition to a clean energy economy. Critical minerals are used in a variety of clean energy technologies, such as electric vehicles, wind turbines, and solar panels. As the world transitions to a clean energy economy, demand for critical minerals is expected to grow significantly.

They are used in a variety of other products. Critical minerals are also used in a variety of other products, such as **electronics, semiconductors, and medical devices**. This means that a disruption in the supply of critical minerals could have a significant impact on a wide range of industries.

Critical Minerals are also used in smart electronics; defence and aerospace equipment; telecommunication technologies and so on.

What is the need of the Mines and Minerals Amendment Bill, 2023?

For regulation, the MMRD Act classifies mining-related activities into: (i) reconnaissance, which involves a preliminary survey to determine mineral resources, (ii) prospecting, which includes exploring, locating, or proving mineral deposits, and (iii) mining, the commercial activity of extraction of minerals.

India has explored just 10% of its Obvious Geological Potential (OGP), less than 2% of which is mined, and the country spends less than 1% of the global mineral exploration budget. **Most exploration projects have been carried out by the government agency** Geological Survey of India and other Public Sector Undertakings (PSUs).

India's mining policy had kept private-sector explorers away from greenfield exploration of minerals for some years. It means they could only get licenses to **further prospect and mine resources** that had been explored by a government entity.

Union Minister of Mines Pralhad Joshi noted that while Indian PSUs were doing good at exploring surface and bulk minerals like coal and iron ore, **they had not done well with deep-seated and critical minerals**. It was due to the high cost and long duration of risky projects, along with the pressure to increase the supply of bulk minerals.

In Australia and other jurisdictions globally, private mining firms take risks to find potential mines. They are called known as **junior explorers**. Once mines are found, they can sell these to bigger mining companies, who then develop and run these mines.

How Mines and Minerals Amendment Bill, 2023 aims to tackle the challenges of Critical Mineral supply in India?

The bill allows private sector investment in the exploration of critical and deep-seated minerals in the country.

Firstly, the Bill excludes at least six previously mentioned atomic minerals from a list of 12 which cannot be commercially mined. Being on the atomic minerals list, the exploration and mining of these six — lithium, beryllium, niobium, titanium, tantalum and zirconium, was previously reserved for government entities.

Secondly, The Bill introduces a **novel license category** aimed at **fostering exploration** by private sector players at the **reconnaissance and prospective stages**.

It is termed an **exploration license**. This license will be awarded by State governments through **competitive bidding**. It will span for five years initially with the potential for a **two-year extension**.

In these bidding rounds, qualified explorers will bid for a desired percentage of the **auction premium**. This premium will eventually be paid by a **mining lease holder** upon successfully exploiting a mine unearthed through State government-led exploration.

Third, Allowing retention of part of the exploration area: It also specifies the maximum area for exploration; activities in up to 1,000 sq km will be allowed under a single exploration license. It also states that the licensee will be allowed to retain up to 25% of the originally authorized area after the first three years after submitting a report to the State government stating reasons for retention of the area. The MMRD Act currently requires exploration licensees to relinquish the entire exploration area after three years, unless they are granted a mining lease.

Fourth, state government will grant the exploration licence through competitive bidding. While the central government will frame rules for exploration licensing.

Fifth, the exploration licence will be issued for five years. A licensee may request for extension of up to two years.

Sixth, Auctioning of mining leases for critical and strategic minerals: The MMRD Act currently allows the state governments to auction mining leases for all minerals. The MMRD Amendment Bill gives the central government the power to auction mining leases for specified critical and strategic minerals, such as gold, silver, copper, zinc, lead, nickel, and cobalt.

What are the challenges with the bill?

Gestation period: The main way a private company with an exploration license can earn revenue is through a share of the premium paid by the miner. This only happens after a successfully discovered mine is auctioned and operational. This process could take years due to government clearance timelines. **For example**, Ghorabhurani-Sagasahi Iron Ore Mine, a greenfield captive mine, was auctioned in 2016. Despite being a bulk mineral, production only started in late 2021, nearly six years later, due to the time taken to receive necessary clearances.

Uncertain payment: The explorer won't know how much revenue they'll receive as the auction premium will only be known when a mine is successfully auctioned.

In a 2012 ruling, the Supreme Court observed that large capital investments go into discovering natural resources through exploration and mining contracts. Companies would only want to spend large amounts if they're assured of utilizing any discovered resources. In the new bill, only the government can auction what an explorer has discovered. This is unlike other global jurisdictions, where private explorers can sell their discoveries to miners, themselves.

Conclusion

Private players always get motivated by the profit they are going to make. If government want them to participate in the exploration of critical minerals in India, it needs to provide them certainty of the revenue stream from that investment, then only, india's efforts towards self-sufficiency will be successful.

Source: [The Hindu](#) , [PIB](#)

Delhi Services Bill: Explained, pointwise

Introduction

Recently, the Parliament passed the Government of National Capital Territory of Delhi (Amendment) Bill, 2023, (commonly called Delhi Services Bill) that gives the central government control over bureaucrats in the Delhi government. It amends the Government of National Capital Territory of Delhi Act, 1991. The Bill repeals the Government of National Capital Territory of Delhi (Amendment) Ordinance, 2023, and will apply retrospectively from the date of promulgation of the ordinance.

Why was the Delhi Services Bill introduced?

The **question of power-sharing** between the Delhi government and central government has been raised before the Supreme Court on several occasions.

In May 2023, a five-judge Constitution Bench ruled that the **Delhi government has legislative and executive powers over administrative services** in the national capital.

The question before the Court was whether the Delhi government (headed by the elected Chief Minister) or the Lieutenant Governor (appointed by the President) would have control over services and civil servants in Delhi.

The Court ruled that the Delhi government will have control over services in Delhi. Such control will not extend to the subjects of police, public order, and land, over which the central government has exclusive powers.

The 2023 judgement also **reaffirmed a 2018 judgement** where the Supreme Court had ruled that the LG did not have independent decision-making powers and was bound to follow the aid and advice of the Council of Ministers.

After the Supreme Court's judgment on control over services in Delhi, the Government of National Capital Territory of Delhi (Amendment) Ordinance, 2023 was promulgated by the Central Government. The Delhi Services Bill repeals the Ordinance.

What are the key features of the Delhi Services Bill?

National Capital Civil Services Authority: The Bill establishes the National Capital Civil Services Authority to make recommendations to the Lieutenant Governor of Delhi (LG) on certain matters related to services. These include: (i) transfers and postings, (ii) matters related to vigilance, (iii) disciplinary proceedings.

The Authority will consist of the: (i) Chief Minister of Delhi as Chairperson, (ii) Principal Home Secretary of the Delhi government and (iii) Chief Secretary of the Delhi government. The central government will appoint both the Principal Home Secretary and Chief Secretary. All decisions of the Authority will be based on a majority vote of the members present and voting. The quorum for a meeting is two people.

Powers of the Lieutenant Governor: The Bill stipulates that in areas where LG is authorized to exercise discretion, the LG will make decisions based solely on his discretion. It expands the discretionary role of LG by giving him powers to approve the recommendations of the Authority or return them for reconsideration. In the case of a difference of opinion between the LG and the Authority, the former's decision will be final.

Matters to be submitted to the LG: Certain matters must be submitted to the LG, through the Chief Minister and the Chief Secretary, for his opinion prior to the issue of any order. These include proposals affecting: (i) the peace and tranquility of Delhi, (ii) relations between the Delhi government and the central government, Supreme Court, or other state governments, (iii) summoning, prorogation, and dissolution of the Legislative Assembly, and (iv) matters on which LG is to give an order in his sole discretion.

Duties of Secretaries: Additionally, the Department Secretary concerned must bring certain matters to the notice of the LG, the Chief Minister, and the Chief Secretary. These include matters which may bring the Delhi Government into controversy with the central or any state government, the Supreme Court, or High Court of Delhi.

How is the Delhi Services Bill different from the Ordinance?

The bill removes the **Section 3A** of the ordinance that held that the Delhi legislative assembly will not have control over services under Entry 41 of List II of the Seventh Schedule of the Constitution which includes the State public services and State Public Service Commission.

The Bill states that the **power to appoint authorities, boards, commissions, statutory bodies, or office bearers** will be with the President for any law of Parliament, and with the LG for any law of Delhi legislature. The Ordinance in this regard had stated that the power to appoint authorities, boards, commissions, statutory bodies, or office bearers will lie with the President under any law.

The bill also does away with the provision included in the Ordinance that required the Civil Services Authority to submit an **annual report** to the central government and Delhi government, which will be tabled in Parliament and the Delhi Legislative Assembly.

While the ordinance stated that any matter of administrative importance which the President or the Delhi Chief Minister may consider necessary will be submitted to the LG prior to the issue of any order; the bill states that only matters of administrative importance which the chief minister may consider necessary will be submitted to the LG prior to the issue of any order.

What are the concerns related to Delhi Services Bill?

Contradicting the principles of parliamentary democracy: The decisions of the National Capital Civil Services Authority will be based on a majority, and therefore creates the possibility for the Union government appointed members to overrule the decisions of the chief minister. Further, the Bill grants LG the power to override the recommendations of the Authority. Therefore, the Bill effectively gives the central government powers over services in Delhi. This may violate the triple chain of accountability, which is an essential feature of parliamentary democracy.

The Democratic government rests on a triple chain of accountability: (i) civil servants are accountable to ministers, (ii) ministers are accountable to legislatures, and (iii) legislatures are accountable to the electorate. A democratically elected government must be able to have control over and hold accountable public officers posted in the service of his government. By separating the first link of the triple chain of accountability, the Bill may be contradicting the principles of parliamentary democracy.

The LG may not be bound to act on the aid and advice of the Council of Ministers: As per Article 239AA, the LG has to act on the aid and advice of the Council of Ministers, except when exercising his functions in his discretion. The provisions of the Bill may violate the principle of the LG acting on the aid and advice of the Council of Ministers on matters within the executive competence of the latter. They also contradict the 2018 judgement of the Supreme Court which stated that the decision-making power lies with the elected government.

For example, under the Government of National Capital Territory of Delhi (GNCTD) Act, 1991, the LG has the power to summon, prorogue, and dissolve the legislative assembly. However, he is bound to act on the aid and advice of the Council of Ministers. The Bill allows the LG to override the decision of the Council of Ministers and exercise sole discretionary powers on these matters. This implies that the Chief Minister may not be able to convene a session of the Assembly for any essential government business.

Certain terms in the Bill are unclear: The Bill specifies that in certain matters, the LG will act in his sole discretion. It is unclear how 'sole discretion' of the LG is different from 'discretion'. Under the Bill, the concerned department secretary must bring certain matters to the notice of the LG, the Chief Minister, and the Chief Secretary. These include matters which may bring the Delhi Government into controversy with the central or any state government, the Supreme Court, or High Court of Delhi. It is not clear what matters would be considered controversial.

Breaks the usual chain of command: The bill also allows department secretaries to take matters to LG, chief minister and chief secretary without consulting the minister concerned. This would break the usual chain of command as issues related to the ministry would have no input from the minister concerned. This also may go against the principle of collective responsibility of the cabinet.

Conclusion

The administrative apparatus of the Delhi government is likely to get streamlined once the Delhi Services Bill, 2023, is implemented as it will bring clarity on the issue of control of services in the national capital.

The Bill may be challenged in the Supreme Court. In July, the apex court referred the ordinance, which preceded the Delhi services bill, to a constitutional bench. It remains to be seen if the Bill clears the basic structure test.

Sources: [Deccan Herald](#), [The Wire](#), [PRS](#)

Small Modular Reactors: Explained, pointwise

Introduction

The Paris Agreement goals and SDG 7 has prompted an overhaul in worldwide energy supply technologies. With the advent of clean energy transition, there has been a great thrust towards adopting cleaner energy options to move towards the net zero emissions scenario by the respective countries. Apart from Renewable Energy, nuclear is also being explored as a clean energy option. Conventional Nuclear Powerplants have generally suffered from time and cost overruns. As an alternative, several countries are developing small modular reactors (SMRs) to complement conventional Nuclear Powerplants. India is also taking steps for development of SMRs to fulfill its commitment to Clean Energy transition.

Note: A clean energy transition refers to the process of shifting from conventional, fossil fuel-based energy sources to cleaner and more sustainable alternatives.

Why nuclear power is needed to supplement renewable energy?

The transition from coal-fired power generation to clean energy poses major challenges. **Solar and wind energy alone will not suffice** to provide affordable energy for everyone.

In decarbonised electricity systems with a significant share of renewable energy, the addition of at least one firm power-generating technology can improve **grid reliability and reduce costs**.

The **grid integration costs of nuclear powerplants are lower** than those associated with variable renewable energy (VRE) sources like solar and wind, because NPPs generate power 24×7 in all kinds of weather.

What are Small Modular Reactors?

As per the International Atomic Energy Agency (IAEA), the SMRs are advanced nuclear reactors with a **power generation capacity ranging from less than 30 MWe to 300 MWe**. SMRs are:

Small – physically a fraction of the size of a conventional nuclear power reactor.

Modular – making it possible for systems and components to be factory-assembled and transported as a unit to a location for installation.

Reactors – harnessing nuclear fission to generate heat for electricity production or direct application.

At present, nearly **80 SMR designs** are under development and licensing stages, and a few of them are at deployment and operational stages globally.

Broadly, SMRs are classified as:

- **Land based water cooled SMRs:** SMRs in this category include the water cooled SMR designs having different configurations of Light Water Reactor (LWR) and Pressurized Heavy Water Reactor (PHWR) technologies for on-land applications.
- **Marine based water cooled SMRs:** SMRs in this category include the water-cooled SMR designs for deployment in a marine environment.
- **High-temperature gas-cooled SMRs (HTGRs):** SMRs from this category can provide very high temperature heat of more than 750 degrees Celsius and thereby higher efficiency in electricity generation.
- **Liquid metal-cooled fast neutron spectrum SMRs (LMFRs):** SMRs in this category include designs based on fast neutron technology with different coolant options including helium gas and liquid metal coolants like sodium, lead and lead-bismuth.
- **Molten salt reactor SMRs (MSRs):** SMRs in this category are based on molten fluoride or chloride salt in the role of coolant.
- **Microreactors (MRs):** MRs are very small SMRs designed to generate electrical power typically up to 10 MW(e). Different types of coolant, including light water, helium, molten salt and liquid metal are adopted by microreactors.

Both public and private entities are actively engaged to realize Small Modular Reactor (SMR) technology's implementation before the end of this decade. As of now, two SMR projects have reached at operational stage globally: (i) The SMR named **Akademik Lomonosov** floating power unit in the Russian Federation (ii) The SMR named as **HTR-PM demonstration SMR** in China.

How Small Modular reactors are different from conventional nuclear powerplants?

SMRs are designed with a **smaller core damage frequency** (the likelihood that an accident will damage the nuclear fuel) and **source term** (a measure of radioactive contamination) compared to conventional NPPs.

SMR designs are also **simpler** than those of conventional NPPs and include several passive safety features, resulting in a lower potential for the uncontrolled release of radioactive materials into the environment.

The **amount of spent nuclear fuel stored in an SMR project will also be lower** than that in a conventional nuclear power plant.

What are the benefits of Small Modular Reactors?

SMRs are adaptable and scalable: SMRs are adaptable and can be scaled up or down to supply more or less power. It can also be used to supplement existing power plants with zero-emission fuel or to help repurpose ageing thermal power stations.

Refueling interval: SMR-based power plants might only need to refuel every three to seven years, as opposed to every one to two years for traditional plants. Some SMRs have a 30-year without refueling operating life expectancy.

Compact design: Land requirements in the case of SMRs are less as compared to land requirements for large reactors and renewable energy sources. SMRs are anticipated to reutilize parts of ageing/decommissioned fossil fuel based power plants.

Safety features: Extensive use of passive safety features in SMR designs, which rely on the laws of physics to shut down and cool the reactor under abnormal circumstances, provide inherent

safety. In most cases, these technologies don't need a power supply and can handle accidents without the assistance of a person or a computer.

Economical: SMRs require a low capital outlay and/or a phased capital expenditure. They have the adaptability to allow co-generation, supply heat for desalination and manufacturing etc.

SMRs are flexible: SMRs can be integrated with Renewable Energy to fulfill the need for flexibility, producing energy services, and low-carbon co-products. These can include electricity, hydrogen, synthetic fuels, hot process gases or steam. When coupled with variable energy sources SMRs can mitigate fluctuations on a daily and seasonal basis.

What are the challenges associated with Small Modular Reactors?

Technology choice issue: A large number of SMR technology alternatives are evolving at present, which are too many for sustained growth of SMR industry. A large number of technologies, if adopted for deployment at the same time, could not only create regulatory challenges for the nuclear industry but also take away some degree of cost optimization. The choices must narrow down to a few SMR designs.

Finance: The SMR industry is yet to realize fully developed operational fabrication facility for large scale serial manufacturing of SMR components. Such facility may necessitate a very large investment. There are also challenges in mobilizing finance for technology development, licensing and construction of prototype plants.

Licensing challenges: Newly developed SMR technologies may find it difficult to accommodate in the existing licensing process. The lack of experience with innovative designs within the nuclear safety regulatory organisations presents a substantial problem in examining and approving the safety standards.

Radioactive waste: SMRs also produce radioactive waste from spent fuel and require spent fuel storage & disposal facilities. Apart from the technological and cost aspects of such a requirement, this requirement can also lead to socio-political resistance.

Safeguards challenges: There is also a need to have a robust safeguards approach in place for novel technology.

Public perception and engagement: Nuclear power has faced traditional opposition due to the potential consequences of a nuclear disaster. Creating awareness is a challenge.

What are the legal and regulatory changes required for Small Modular Reactors?

The **Atomic Energy Act** will need to be amended to allow the private sector to set up SMRs.

To ensure safety, security, and safeguards, **control of nuclear fuel and radioactive waste** must continue to lie with the Government.

The government will also have to **enact a law to create an independent, empowered regulatory board** with the expertise and capacity to oversee every stage of the nuclear power generation cycle.

The Department of Atomic Energy must **improve the public perception of nuclear power** in India by better disseminating comprehensive environmental and public health data of the civilian reactors.

What should be the way forward?

Standardization of designs of components and modules will facilitate adoption of SMRs at large scale.

The existing **safety assessment methodology should be updated** for the concept of multi-module designs and emergency planning zones of SMRs.

Availability of **low-cost finance**, inclusion in green taxonomy and utilization of innovative financing instruments such as blended finance, green bonds, etc. are required to catalyze private investment.

Availability must be ensured of required **skilled personnel** across the value chain (engineering, design, testing, inspection, construction, erection and commissioning) for multi-module plants.

Strategic partnerships will be the key to successful technology development and deployment of SMRs on a large scale. Collaboration among national laboratories & research institutions, academic institutions, private companies and government departments is necessary.

These collaborative efforts would be required to be extended at the **International Atomic Energy Agency** level to coordinate with respective countries for developing an ecosystem for greater benefits.

Conclusion

SMR may complement large-size reactors to increase the nuclear share in energy mix and achieve Net Zero Emissions goals. The government will have to play a major role in consensus building towards nuclear energy by engaging relevant stakeholders.

Sources: [The Hindu](#), [Niti Aayog](#), [IAEA](#)

Smartphone Ban in Schools: Explained, pointwise**Introduction**

The use of smartphones among students is rising due to digital revolution, especially post Covid-19. Recently, the United Nations Educational, Scientific and Cultural Organization (UNESCO) has called for prohibiting smartphones in schools. A recent advisory issued by the Delhi government has highlighted the need for all stakeholders connected with school education to arrive at a consensus on the minimum use of mobile phones in the school environment. These developments have started a discussion on whether a complete smartphone ban in schools is necessary.

Which are the countries restricting mobile use in schools?

UNESCO says that one in four countries now have a ban or some sort of restriction on smartphone use in schools.

The **Netherlands** will ban mobile phones from classrooms in 2024. **Finland** announced a similar measure in June 2023.

Schools in United States' **Ohio, Colorado, Maryland, Connecticut, Pennsylvania, Virginia and California** banned the devices in class in 2023. Several schools in the US have had a cellphone ban since 2020.

China halted the use of mobile phones in schools in February 2021.

Schools in Australia's **Tasmania** introduced a mobile phone ban in 2020.

In 2018, **France** prohibited mobile phones for elementary and middle school students.

The **United Kingdom** has earlier supported banning mobile phones in schools.

While **India** does not have a legal ban on smartphones in schools, state governments and school administrations take their own call on the matter.

What is the evidence from India about smartphone usage among school students?

The **State of Elementary Education in Rural India report**, released in August 2023, found the following:

- Around 49.3% of students in rural India have access to smartphones.
- However, a significant portion, 76.7% of these students primarily use their phones for entertainment purposes, such as playing video games and watching movies.
- Only 34% of smartphone-accessible students use their devices for study-related downloads, while 18% access online learning through tutorials.

What are the arguments in favour of smartphone ban in schools?

Digital devices cause **distraction in classes**. UNESCO said there was evidence that excessive mobile phone use was linked to reduced educational performance. Studies using data from large-scale international assessments, such as **PISA**, indicate a negative association between excessive ICT use and student performance.

According to a 2015 London School of Economics research, **banning mobile phones at schools resulted in higher test scores**, with low-performing students benefiting the most.

Research published by the University of Chicago found that the **mere presence of cellphones reduces the cognitive capacity of people**.

A study conducted in Spain said that **banning mobile phones in schools led to a fall in bullying incidents**. Similar results were found by researchers in Norway.

UNESCO report also said that high levels of screen time had a **negative effect on children's emotional stability**. Psychologists also advocate that mobile phones are addictive in nature, and can hinder concentration and social skills, and cause increased anxiety and mental illness.

The **Annual Status of Education Report (ASER)** has repeatedly highlighted **poor learning outcomes** in Indian schools. In this context, use of smartphones in classrooms will further worsen the situation.

Introducing mobile phones in schools may **exacerbate existing social disparities**. Not all students have equal access to smartphones or reliable internet connections outside of school. This can create a **digital divide**, where some students benefit from the educational advantages of mobile phones while others are left at a disadvantage.

What are the arguments against smartphone ban in schools?

A complete mobile ban may not be a solution, especially in an increasingly digital age.

In 2014, a UNESCO study found that **smartphones in developing nations could help millions to read who have no access to educational and reading material.**

According to the report on mobile readers in developing countries, about 62 per cent of respondents said they were reading more using their mobile phones. The report suggested that mobile reading could potentially benefit women living in countries where they face cultural or social obstacles to accessing books.

Research by the University of Warwick in 2017 found that mobile phone apps can **revolutionise school learning in developing countries** where educational resources are scarce.

Mobile phones also act as a mode of communication between parents and their children in schools, and some families encourage pupils to carry the devices for **safety reasons.**

The **National Education Policy (NEP) 2020** emphasizes the use of technology and digital learning. In this context, a complete ban on smartphones in schools will go against the NEP's approach towards technology.

What should be the way forward?

Instead of a complete ban, an **age restriction** can be put on when students can bring phones into the classroom.

More **face-to-face interaction** must be promoted to maintain academic integrity and to foster a healthy learning atmosphere.

Students must be given **digital literacy** and sensitised to the pros and cons of smartphone usage. In the age of AI, they should be made aware of how to smartly use devices.

Governments should **put learners first**, and policy-makers must come up with some kind of **school safety policy.**

Conclusion

Digital technology, including artificial intelligence, should always be subservient to a human-centred vision of education, and never replace face-to-face interaction with teachers and neglect the social dimension of education. The digital revolution holds immeasurable potential but, just as warnings have been voiced for how it should be regulated in society, similar attention must be paid to the way it is used in education.

Sources: [The Hindu](#), [Firstpost](#),

Elephant conservation: Explained, pointwise

Introduction

As World Elephant Day is celebrated, India takes pride in its significant elephant numbers. Elephant conservation has been largely a success story as India is home to about 30,000 elephants, which is more than 60% of the global wild Asian elephant population. The population in India is distributed across southern, northeastern, east-central and northern regions. While the number of elephants in India has increased in the past few years, the species is listed as 'Endangered' on the IUCN Red List of threatened species. India acknowledges the importance of elephants by recognising them as National Heritage Animal.

What is the role of elephants in the ecosystem?

Elephants serve a critical role in the ecosystem and are therefore known as a **keystone species**. Keystone species are those that provide vital ecosystem services, many of which are essential for the survival of other species in the community.

Seed dispersal: Elephants consume a wide variety of fruits, nuts, and plants. As they travel, they excrete the undigested seeds along with their dung. This process helps in dispersing seeds over large distances, contributing to plant regeneration and biodiversity.

Water Hole Creation: Elephants dig for water and create new watering holes, which allow them to survive during the dry season. These water sources benefit a wide range of species, including smaller mammals and birds, especially in arid regions.

Nutrient Cycling: Elephants consume a large quantity of vegetation daily, and their dung is rich in nutrients. When elephants move through the landscape, they deposit these nutrients in various areas, contributing to nutrient cycling and enhancing soil fertility.

Create new paths: Elephants are known as "ecosystem engineers" due to their ability to shape their environment. They create pathways through dense vegetation, which benefits other species by providing easier access to resources. Similarly, elephants pull down and uproot thorny bushes, which further helps in clearing safe pathways for smaller animals. The clearance of some thorny bushes also allows more light to reach the ground, which promotes the growth of new plant species and reduces competition.

Finding natural salt licks: Elephants use their sense of smell to detect areas in the ground that have large quantities of minerals. These salt lick sites are not only used by elephants, but also other herbivores who may need to increase their mineral intake.

What are the challenges in elephant conservation?

Habitat Loss and Fragmentation: Habitat loss is widely considered a major threat to Indian elephants. From expanding human settlements and mining to converting land to plantations and linear infrastructure, many activities can block migratory elephant routes and drive them into smaller subpopulations. When animals are forced into smaller pockets of populations, they risk losing genetic diversity and have a higher chance of dying from disease and natural disasters. When accounting for climate change projections, scientists predict that the elephant population in the country could lose over 40% of its habitat by 2070.

Elephant corridors: Elephant herds are known to migrate across 350-500 sq. km. annually. As elephant habitats have been fragmented, the pathways connecting them—called corridors—have become increasingly important for allowing elephants to access resource. But anthropogenic pressures have also contributed to extreme degradation of large parts of elephant corridors. As per the latest estimate, 101 elephant corridors exist in the country, with many facing the threat of being cut off.

Human-Elephant Conflict: Increasingly fragmented landscapes are driving the elephants more frequently into human-dominated areas. Elephants raid plantations and crop fields in their quest for food or move between forest patches, giving rise to more man-animal conflicts. They lead to the death and injury of human beings and retaliatory killings of elephants. On average, about 500 humans and 100 elephants are killed every year across the country in such confrontations. This is amongst the biggest threats to the survival of elephants in the wild.

Poaching: Poaching remains a threat to elephants. Since only males have tusks, poaching has resulted in a highly skewed male-female ratio in many areas. In some areas, the normal level of 1:12 (male-female) has been distorted to 1:100. This abnormality seriously affects the genetic viability of the populations. Poaching for meat, skin and other products like tail hair also threatens elephant populations, especially in northeast India.

Insufficient funds: Project Elephant's budgetary allocation has remained around Rs 30-35 crore on average for several years now. The Rs 35 crore allocated in FY 2022-2023 is effectively just Rs 1.09 crore per year per reserve, whose average size is 2,400 sq.km.

Other challenges: There are 33 elephant reserves in India but they don't promise greater standards of protection of elephant habitats because they are not recognised under any law. As a result, governments easily divert elephant reserves and corridors for various projects, although mining and linear infra projects are especially destructive.

The environment ministry is yet to implement several expert committees' recommendations. For example, the **elephant task force (ETF)** submitted its report in 2010 but the government has implemented none of these recommendations. In 2019, the elephant cell under Project Elephant formed a committee to prepare a '**National Elephant Action Plan**', to frame time-bound strategies and action plans to manage and conserve elephants. The action plan is still not ready.

What are the legal protections given to the Asian elephants?

The Asian Elephant has been given the highest level of protection in India by its inclusion in **Schedule 1** of the **Wildlife (Protection) Act 1972**.

Asian Elephants are also included in Appendix I of the **Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)**.

In 2019, with the efforts put in by the Indian Government, the Indian elephants have now been included in the **Appendix I** of the **Convention of Migratory Species (CMS)**.

What are the steps taken by the government for elephant conservation?

Project Elephant was launched by the Central Government in 1992 as a Centrally Sponsored Scheme with following objectives: 1. To protect elephants, their habitat & corridors 2. To address issues of man-animal conflict 3. Welfare of captive elephants. The Ministry of Environment, Forest and Climate Change provides the financial and technical support to major elephant range states in the country through Project Elephant.

Note: Recently, Project Elephant has been merged with Project Tiger. A common allocation will fund both. The administrative setup for the two schemes will continue to exist separately.

Various other **Centrally Sponsored schemes** being implemented by the Ministry of Environment, Forest & Climate Change (MoEF&CC) contribute to the improvement in the natural habitat of elephants by augmenting water sources, planting of fodder trees, regeneration of bamboo etc.

The Compensatory Afforestation Fund Act 2016 and the Rules made there under also provide for use of the fund for development of wildlife habitats, including for elephants, establishment of animal rescue centres, etc.

To reduce human-elephant conflict and to avoid retaliatory killing of elephants, **compensation** is being provided to local communities for loss of their property and life caused by wild elephants.

The Government also provides **crop insurance** to the farmers for their crops being damaged by wild animals under Pradhan Mantri Fasal Bima Yojana.

An **advisory on dealing with human-wildlife conflict** has been issued by the Ministry in February 2021.

To **minimise the adverse impact of existing railway lines** on elephants and other wildlife, recently, 110 critical sites over 1,800 km on existing railway lines were identified by MoEF&CC and state forest departments. Mitigation strategies will be undertaken on these sites with the cooperation of railway ministry.

The MoEF&CC's **Land Use Land Cover analysis** of elephant reserves for states will offer a detailed approach towards elephant conservation.

What should be the way forward for elephant conservation?

The Elephant Task Force report laid out an actionable and progressive framework for elephant conservation. Its recommendations are still relevant.

Elephant reserves should be accorded the status of being '**ecologically sensitive areas**' under the Environmental (Protection) Act 1986.

A statutory body in line with the National Tiger Conservation Authority, named the **National Elephant Conservation Authority** (NECA) should be formed.

To create a more co-ordinated and science-based mitigation strategy for human-elephant conflict, a permanent **Conflict Management Task Force** should be formed for the review of existing conflict mitigation strategies and recommend site-specific strategies at the reserve level.

All the **elephant corridors should be notified** by respective state governments.

Different '**no-go**' and '**slow-go**' zones should be created in the elephant reserves for the regulation of developmental activities.

Financial support should be increased considerably for elephant conservation as elephants need large areas to move around and protecting such large landscapes needs money.

Sources: [Times of India](#), [The Wire](#)

Bharatiya Nyaya Sanhita Bill: Explained, pointwise**Introduction**

The government has introduced three bills- Bharatiya Nyaya Sanhita (BNS) Bill 2023, Bharatiya Nagarik Suraksha Sanhita (BNSS) Bill 2023, and Bharatiya Sakshya (BS) Bill 2023 to replace the Indian Penal Code (IPC) 1860, Criminal Procedure Act 1898, and the Indian Evidence Act 1872 respectively. The Union Home Minister, while introducing these laws, remarked that these laws were made 160 years ago with an aim to create an atmosphere in favour of the British authority in London. Here we take an in depth look Bharatiya Nyaya Sanhita (BNS) Bill 2023 which seeks to replace the IPC.

Brief history of IPC

The 164-year-old IPC, which defines crimes and prescribes their punishment, is at the heart of Indian criminal justice system. The architect of this law was an English lawyer, Thomas Babington Macaulay.

The Charter Act, 1833, established a law commission (1834), and Macaulay was appointed its chairman. It is in this position that he embarked on consolidating and codifying the criminal laws of India.

The codification of criminal laws was needed as a mix of Hindu, Muslim and British laws was applicable across the country.

Then there was the problem of the same crime having a different punishment depending on whether it took place in the presidency of Calcutta, Madras or Bombay.

Also, the British lawmakers had not codified their criminal law, so there was no template to follow.

It is in this context that the IPC was drafted. It was enacted by the British colonial government in 1860 and came into effect in 1862.

What is the need for the Bharatiya Nyaya Sanhita (BNS) Bill?

For a long period, it has been a recognized that a revamp the criminal justice system in India is necessary. The existing laws, stemming from the colonial era, no longer represent the present-day dynamics and aspirations of Indian society.

The Law Commission of India had recommended reforms to India's criminal justice system in its various reports.

Committees like the Bezbaruah Committee, Viswanathan Committee, Malimath Committee, Madhav Menon Committee had also recommended reforms.

The Parliamentary Standing Committee on Home Affairs had also recommended reforms in its 111th report in 2005, 128th report in 2006, and 146th report in 2010.

In 2020, the Ministry of Home Affairs (MHA) has constituted a national level committee for reform in criminal law under Ranbir Singh, former Vice Chancellor of National Law University (NLU), Delhi.

The government reviewed the existing criminal laws with an aim to strengthen law and order and also focus on simplifying legal procedure so that ease of living is ensured to the common man.

What are the key provisions of the Bharatiya Nyaya Sanhita (BNS) Bill?

Sedition: With respect to IPC, section 124-A deals with offence of sedition, prescribing sentence of life imprisonment or imprisonment which may extend to three years, to which fine may be added. Meanwhile, the BNS Bill's provision 150 under the chapter pertaining to offences against the State covers acts endangering sovereignty, unity and integrity of India.

Mob lynching: The BNS Bill has incorporated a specific provision for mob lynching and stipulated punishment ranging from seven years in jail to the death penalty for those convicted of the crime.

Terrorism: Terrorism is listed as separate offence. Terrorist acts have been defined as acts that disturb public order; intimidate the general public; or threaten the unity, integrity and security of India. Commission of such acts, either by use of explosives, or by destroying property or critical infrastructure etc can attract a minimum imprisonment of five years, life imprisonment and even death in some cases.

Organized crime: The bill provides a comprehensive definition for 'Organised Crime' – including the offences of kidnapping, robbery, trafficking, and other economic and cyber crimes, when committed by a group of individuals, whether as members of a crime syndicate or for such a syndicate.

Community Service: The BNS also calls for community service as a punishment for petty offences, which will be the part of penal code for the first time. The introduction of community service makes it a bit similar to the US, where the punishment is given for offences like vandalism, petty theft, and drunk driving.

What are the concerns with Bharatiya Nyaya Sanhita (BNS) Bill?

Ambiguity: The bill omits the offence of sedition by name. However, a new offence has been added that criminalises exciting secession, armed rebellion, subversive activities or encouraging separatist feelings. The framing of this provision has a striking resemblance to that of sedition. It continues to criminalise ambiguous acts of 'exciting secession' and 'encouraging separatist feelings', without defining subversive, secessionist and separatist activities.

No break from colonial legacy: Presented as a method to distance from the colonial inheritance, the bill, in reality, makes minimal progress in this objective. While Macaulay's IPC rested on the principle that punishments instill fear, deterring criminal activity, the bill reinforces this principle. It does so by continuing to rely on long-term imprisonments and the death penalty, by adding and increasing mandatory minimum sentences for certain offences, and by retaining vague definitions for offences against the state as well as for defamation.

Conclusion

As the Bill is referred to a parliamentary standing committee, one hopes that steps will be taken to minimise vagueness and looseness of definitions, and to bring the bill more fully in step with changes in society and advent of new technologies.

Sources: [Times of India](#), [The Hindu](#), [Indian Express](#)

Appointments to the Election Commission – Proposed changes: Explained, pointwise**Introduction**

Recently, the Chief Election Commissioner and Other Election Commissioners (Appointment, Conditions of Service and Term of Office) Bill, 2023, was introduced in Rajya Sabha. It repeals the Election Commission (Conditions of Service of Election Commissioners and Transaction of Business) Act, 1991. The proposed legislation for appointments to the Election Commission aims to exclude the Chief Justice of India (CJI) from the committee responsible for appointing the Chief Election Commissioner (CEC) and Election Commissioners (ECs). This action has ignited conversations about how the Bill might impact the autonomy of the appointment procedure.

What was the need for the Bill for appointments to the Election Commission?

In March, a five-judge bench of the **Supreme Court** unanimously ruled that a **high-power committee** consisting of the Prime Minister, Leader of Opposition in Lok Sabha, and the CJI must pick the CEC and ECs.

The judgement came in a **2015 public interest litigation**, challenging the constitutional validity of the practice of the Centre-appointed members of the Election Commission.

In 2018, the case was referred to a **larger bench** since it required a **close examination of Article 324** of the Constitution.

Article 324(2) reads: “The Election Commission shall consist of the Chief Election Commissioner and such number of other Election Commissioners, if any, as the President may from time-to-time fix and the appointment of the Chief Election Commissioner and other Election Commissioners shall, **subject to the provisions of any law made in that behalf by Parliament**, be made by the President.”

However, since there was **no law made by Parliament** as prescribed by the Constitution, the Court stepped in to fill the “**constitutional vacuum**”.

The Bill now seeks to address this vacuum and set up a legislative process to make appointments to the Election Commission.

How are the CEC and ECs appointed currently?

Appointments to the Election Commission are currently the **central government’s prerogative**.

In the absence of a legislation, the government **selects CECs and ECs from the civil services**.

There is a **database of serving/retired officers of the rank of Secretary** to the Government of India/Chief Secretaries. The appointees are selected from the said database.

The **Minister of Law and Justice recommends a panel** for the Prime Minister and the President from the database. The President makes the appointment on the advice of the Prime Minister.

What are the key features of the Bill for appointments to the Election Commission?

Selection Committee: The Bill states that the CEC and other ECs will be appointed by the President on the recommendation of a Selection Committee. The Selection Committee will consist of: (i) the Prime Minister as Chairperson, (ii) the Leader of the Opposition in Lok Sabha as member, and (iii) a Union Cabinet Minister nominated by the Prime Minister as member. If the

Leader of Opposition in Lok Sabha has not been recognised, the leader of the single largest opposition party in Lok Sabha will assume the role.

The appointment of Chief Election Commissioner and other Election Commissioners shall not be invalid merely by reason of any vacancy in or any defect in the constitution of the Selection Committee

Search Committee: A Search Committee will prepare a panel of five persons for the consideration of the Selection Committee. The Search Committee will be headed by the Cabinet Secretary. It will have two other members, not below the rank of Secretary to the central government, having knowledge and experience in matters related to elections. **The Selection Committee may also consider candidates who have not been included in the panel prepared by the Search Committee.**

Qualification of CEC and ECs: Persons who are holding or have held posts equivalent to the rank of Secretary to the central government will be eligible to be appointed as CEC and ECs. Such persons must have expertise in managing and conducting elections.

Salary and allowances: The 1991 Act provides that the salary of the ECs will be equal to that of a Supreme Court judge. The Bill provides that salary, allowance, and service conditions of the CEC and other ECs will be the same as that of the **Cabinet Secretary**.

Re-appointment: Under the Bill, the CEC and other ECs will not be eligible for re-appointment.

Conduct of business: All business of the Election Commission is to be conducted unanimously. In case of difference of opinion between the CEC and the other ECs on any matter, it shall be decided through majority.

Can the Parliament undo a decision of the Supreme Court?

Parliament has the power to **nullify** the effect of a Court ruling **by addressing the concerns flagged** in the judgement. The law **cannot simply be contradictory to the ruling**.

Parliament has to **remove the judgement's "very basis"**. In **Utkal Contractors (1987)**, the apex court explicitly held that rendering judicial judgment ineffective through legislative powers by removing the basis of judgment is a well-known pattern of all validating laws.

In **Madras Bar Association versus Union of India (2021)**, the Supreme Court stated that "the defect pointed out (by the judgement) should have been cured (by the validating statute) such that the basis of the judgment pointing out the defect is removed".

In this case, the arrangement prescribed by the Supreme Court was specifically because the Court noted that there was a "**legislative vacuum**". Filling that vacuum is well within the purview of the Parliament.

What are the concerns with the Bill for appointments to the Election Commission?

Functioning of selection committee: The Bill permits the selection committee to "govern its own process with transparency." So, the methods employed by this committee are likely to remain undisclosed. The Selection Committee also retains the option to evaluate individuals beyond those initially listed by the Search Committee. This would grant the Selection Committee complete authority in determining the Election Commissioners and undermine the authority of the search committee.

Executive control: As mentioned by the Supreme court, the Constituent Assembly wanted that the election machinery should be outside the control of the executive government. The Supreme Court attempted this in its judgement but while enacting a law. The composition of the Selection Committee in the Bill raises questions on whether the process is now independent or if it remains biased in favor of the Executive. With the inclusion of the Prime Minister and a Cabinet Minister nominated by the Prime Minister within the three-member panel, the presence of the Leader of the Opposition holds lesser influence even before the process begins.

Downgrading of the status: The Bill downgrades of the status of election commissioners as well as the CEC from being at par with Supreme Court judges to that of cabinet secretary. The cabinet secretary is directly under the government. Granting election commissioners, the equivalent status of Supreme Court judges provides them with significantly greater influence in relation to the political class they interact with.

What are the positive aspects of the Bill for appointments to the Election Commission?

Search committee: The Bill has suggested that a search committee, headed by the Cabinet Secretary, should prepare a panel of names. This is an improvement on the present practice where the government can choose literally anyone.

Qualifications: Previously, there was no regulation stipulating the qualifications for appointment to the positions of CEC and ECs. The bill prescribes the qualifications and prioritizes civil servants with prior experience in conducting elections.

Inclusion of opposition: In contrast to the past practice where only the government held the decision-making authority, the inclusion of the leader of the opposition represents a positive development. This change allows for the possibility for someone to agree or disagree.

Conclusion

In order to enhance the credibility of the appointment process, a prerequisite of a unanimous decision by the selection committee can be added to the Bill.

The Election Commission of India has stood as a prominent emblem of democracy worldwide. To uphold this reputation, comprehensive safeguards must be implemented to eliminate any potential doubts regarding its credibility.

Sources: [Indian Express](#), [The Wire](#), [PRS](#)

Poverty Measurement in India: Approaches and Challenges – Explained, pointwise

Introduction

Recently, Niti Aayog released the poverty estimates using the Multi Dimensional Poverty Index (MDPI). Multidimensional poverty measurement approach has been promoted by the UNDP. This method reflects a shift from traditional monetary measures to a holistic view of poverty. Measuring poverty in India has always been multifaceted. So, there is need to explore the different methods utilized and discuss the hurdles encountered in accurately assessing poverty levels in India.

What are various approaches to poverty measurement?**Monetary Measures (Income and Consumption)**

Consumption-based Approach: This method measures poverty based on how much people spend on consumption. In India, poverty has traditionally been estimated this way, with data collected from consumption expenditure surveys conducted every 5 years. For example, based on consumption data, expert committees like those led by **Lakdawala**, **Tendulkar**, and **Rangarajan** have drawn “poverty lines” that separate the poor from the non-poor.

Income-based Approach: In this approach poverty is assessed by determining the amount of money required for a subsistence diet or a minimum standard of living. While this method is more direct, in countries like India, **income data are hard to collect**.

Multidimensional Approach (‘Capabilities’ or ‘Deprivations’ based)

The multidimensional approach offers a more **comprehensive view of poverty**, looking beyond just income or consumption. It measures deprivations across multiple dimensions like health and nutrition, education, and standard of living.

While the consumption and income-based methods provide direct financial measures of poverty, the multidimensional offers a holistic view, capturing a wider **range of deprivations**. Different countries and organizations might prefer one method over the other based on their data availability and the dimensions of poverty they prioritize.

What are the shortcomings/challenges in the approaches to poverty measurement?**Challenges of Monetary measures (Income and Consumption)****Income Approach**

There are difficulties in **assessing the incomes of self-employed people**, daily wage labourers, etc. Apart from this, **large fluctuations in income due to seasonal factors**, **additional side incomes**, and data collection difficulties in the largely rural and informal economy of India are other issues with this approach.

Consumption Approach

Subjectivity of Poverty Line: The poverty line, established by expert committees over the years, segregates the poor from the non-poor based on the consumption expenditure. However, **setting this line can be subjective** and might **not accurately reflect the diversity of living conditions** across regions.

Price Variations: The cost of essential items varies across regions. **Consumption approach does not always account for these price differentials**, leading to inconsistencies in poverty assessment. For instances, there’s been a growing gap between consumption estimates from National Accounts Statistics (NAS) and National Sample Survey (NSS) data. This discrepancy, which has been widening over time, is a concern.

Lack of Updated Data: India hasn’t had official consumer expenditure data post-2011-12, making direct comparisons challenging. The 2017-18 survey data hasn’t been officially released, leading to indirect methods and diverse conclusions on poverty trends.

Challenges of Multidimensional Poverty Index (MPI)

Holistic but complex: MPI offers a broader view of poverty by considering factors beyond just income, such as health, education, and standard of living. For example, India's MPI measures deprivations in 12 variables, including maternal health and bank account access, in contrast to the Global MPI's 10 variables.

Comparability issues: India's adaptation of the MPI differs from the Global MPI. The inclusion of two additional variables in India's MPI (maternal health and bank account) can create challenges in making direct comparisons.

Data Availability, Comparison and Aggregation: Data for parameters like child mortality are not available at household level but for groups (like at District or State level). There are challenges in aggregating data e.g., data related to parameters like access to clean drinking water and child mortality can't be aggregated together.

How is poverty measured in India?

Poverty measurement in India has been multifaceted.

Monetary Measures: Consumption Expenditure

Historically, India utilized a monetary approach to measure poverty. Dadabhai Naoroji's 1901 book, "Poverty and Un-British Rule in India," proposed measuring poverty based on the income needed for a subsistence diet.

Planning Commission Task Force (1977): A framework for calculating poverty was laid out in task force report from 1979. It chose to base its estimation on the NSS Consumer Expenditure Survey due to the limited data alternatives available at the time.

Consumption Expenditure: The income approach was refined into consumption expenditure surveys conducted every 5 years, which captured the expenditure habits of individuals.

Poverty Line: Over the years, several expert committees have shaped the definition of the "poverty line". Committees like those led by D T Lakdawala (1993), Suresh Tendulkar (2009), and C Rangarajan (2014) have played significant roles. Notably, the Planning Commission Task Force in 1977 also contributed to defining the poverty line.

The last official poverty figures for India are from 2011. The 2017-18 consumption expenditure survey was discarded due to indications of reduced rural consumption, hinting at a rise in extreme poverty. Lacking recent consumption data, economists have used other data sources, such as NFHS or the Centre for Monitoring Indian Economy (CMIE), to estimate poverty levels.

Multidimensional Poverty Index (MPI)

Niti Aayog's MPI provides a broader perspective on poverty, probing deprivations across **health and nutrition** (nutrition, child and adolescent mortality, maternal health), **education** (years of schooling and attendance), and **standard of living** (cooking fuel, sanitation, drinking water, housing, electricity, assets and bank account).

Global vs. Indian MPI: India's MPI, influenced by the Global MPI designed by OPHI and UNDP, incorporates 12 variables, two more than the Global MPI. These additions are maternal health and bank account ownership.

What has been the trend of poverty in India?

In July 2013, based on the Tendulkar poverty line, Planning Commission released poverty data for 2011-12. The number of poor in the country was pegged at 269.8 million or 21.9% of the population. After this, no official poverty estimates in India have been released.

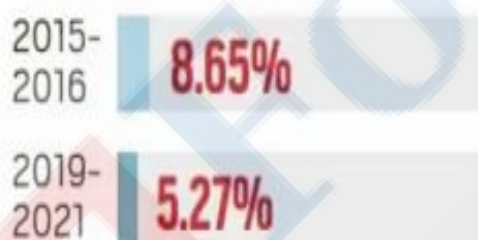
Transitioning to the Multidimensional Poverty Index (MPI) approach, there was a noted decline in poverty rates. As per the report published by NITI Aayog in July 2023, between NFHS-4 (2015-16) and NFHS-5 (2019-21), the multidimensional poverty rate reduced from around 25% to just under 15%. This implies that 135 million (or 13.5 crore) Indians moved out of multidimensional poverty during this period.

MPI Progress Report 2023 (Between NFHS-4 and 5)

Steep decline in Poverty Headcount Ratio



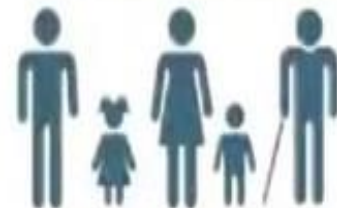
Reduction in the incidence of poverty in urban areas



Source: National Multidimensional Poverty Index: A Progress Review 2023

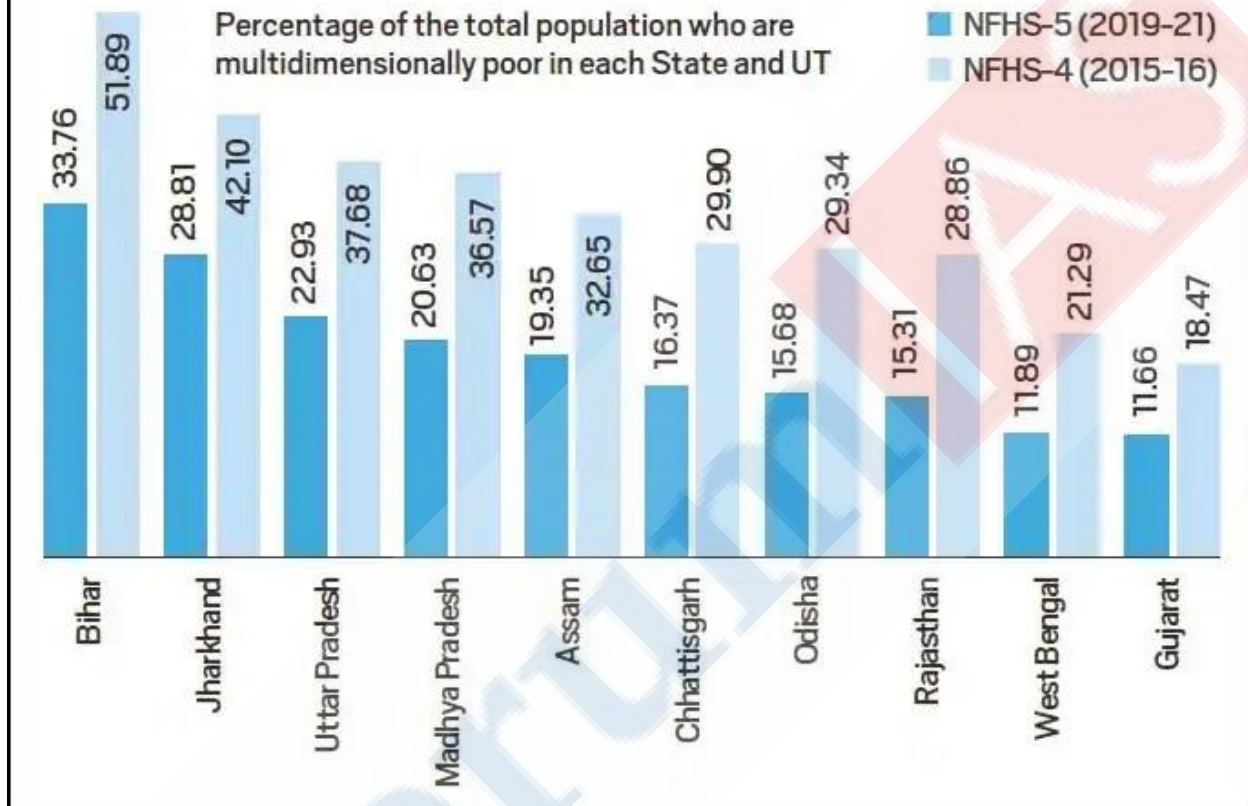
UP, BIHAR, MP, ODISHA and RAJASTHAN recorded steepest decline in number of MPI poor

135 mn people escaped multi-dimensional poverty between 2015-16 and 2019-21



What the poverty data show

Poverty headcount ratio: poorest among large states



Source: Indian Express

The Global MPI 2023 report revealed that from 2005-06 to 2019-21, an impressive 415 million people in India transitioned out of poverty. Delving deeper, 270 million out of these individuals moved out of poverty between 2005-06 and 2015-16.

Middle-Class Evolution: Private research by People Research on India's Consumer Economy (PRICE) in 2021 categorized 196 million Indians as 'Destitutes', 432 million as 'Middle Class', and 732 million as 'Aspirers'.

What should be done ahead?

Clear Definition of Middle Class: While there's a significant number of people rising out of poverty, it's vital to clarify what 'middle class' means in India. Recent data from the **People Research on India's Consumer Economy (PRICE)** survey segmented households based on annual income, categorizing 'Middle Class' between Rs 5 lakh to Rs 30 lakh. A standardised definition can help **create targeted policies**.

Regular Updating of Consumption Data: India's last official poverty data is from 2011. The consumption expenditure survey of 2017-18 was discarded due to its indication of a decline in rural consumption. Regular updates are crucial to understand real-time poverty dynamics.

Inclusion of Diverse Metrics: The difference between the Global MPI and India's MPI, like the inclusion of maternal health and bank account variables, suggests that a **country-specific approach is beneficial**. More such **locally relevant metrics** can make poverty measurement more comprehensive.

Broaden the Dialogue: Due to the uncertainty around the data, especially the consumption data, there is a need to widen the discussion about poverty. Collaboration with think tanks, like the **Centre for Monitoring Indian Economy (CMIE)**, could offer alternate data sources.

Cross-check with Traditional Measures: Despite the advancements in measuring poverty, it's essential to periodically compare new data with traditional measures like the ones proposed by D T Lakdawala, Suresh Tendulkar, and C Rangarajan. Such comparisons can provide a holistic view.

Strengthen Socioeconomic Infrastructure: To sustain the trend of poverty reduction, India should further invest in health, education, and standard of living improvements, areas measured by the MPI.

Source: [Indian Express](#), [The Hindu](#), [Mint](#)

Handbook on Combating Gender Stereotypes: Explained, pointwise

Introduction

Recently, the Supreme Court has issued a first-of-its-kind handbook on combating gender stereotypes. The 30-page Handbook on Combating Gender Stereotypes aims to free the judiciary and the legal community from the mechanical application of gender stereotypical language in judgments, orders, and court pleadings.

About the Handbook on Combating Gender Stereotypes

The Handbook aims to assist judges and the legal community in identifying, understanding and combating stereotypes about women.

It contains a glossary of gender-unjust terms and suggests alternative words or phrases which may be used while drafting pleadings as well as orders and judgments.

For example, instead of using terms like "seductress," "whore," or "woman of loose morals," the handbook suggests that the term "woman" should be used.

The Handbook identifies common stereotypes about women, many of which have been utilised by courts in the past and demonstrates why they are inaccurate and how they may distort the application of the law.

The Handbook also encapsulates the current doctrine on key legal issues which may be relevant while adjudicating certain cases, particularly those concerning sexual violence.

What are stereotypes?

A stereotype is defined as **“a set idea that people have about what someone or something is like, especially an idea that is wrong.”**

Stereotypes are typically held against individuals by virtue of their **membership of a group**. They are assumptions or beliefs that individuals belonging to specific social groups have certain characteristics or traits.

For example, people in many countries believe that all Indians are good at science and mathematics.

Stereotypes influence one's thoughts and actions towards other people. On a micro-level, stereotypes lead to **exclusion and discrimination** in workplaces, educational institutions, and public places.

For example, even where male and female employees are of the same designation, a female employee may be tasked with administrative duties such as organising office-events or buying stationery, while male employees are exempted from such tasks.

How do stereotypes impact judicial decision making?

Stereotypes impact the **impartiality and the intellectual rigour** of judicial decisions. They cause judges to ignore or bypass the requirements of law or distort the application of the law in relation to specific persons or groups.

Even when judges reach legally correct outcomes, the use of **reasoning or language that promotes gender stereotypes undermines the unique characteristics**, autonomy, and dignity of the individuals before the court.

Using stereotypes goes **against the constitutional principle of ‘equal protection of laws’**, which suggests that the law should apply uniformly and impartially to every individual, irrespective of their membership to a group or category.

The use of stereotypes by judges also has the effect of **entrenching and perpetuating stereotypes**, creating a vicious cycle of injustice.

What are the different types of gender stereotypes?

Gender stereotypes are assumptions about the characteristics that individuals of particular a gender have, or the roles that they should perform. This is often seen in assumptions about the different characteristics men and women are believed to possess, and the roles they are expected to perform.

The most common kinds of gender stereotypes that concern women are:

A) Stereotypes based on the so-called **“inherent characteristics” of women**

Assumptions are held about the characteristics of men and women which are believed to be **“inherent”** to each group. These assumptions extend to their emotional, physical, and cognitive capabilities.

For example, a commonly held stereotype is that women are overly emotional, illogical, and cannot take decisions. While the reality is a person's gender does not determine or influence their capacity for rational thought.

B) Stereotypes based on gender roles

Society ascribes specific roles to specific genders. These gender roles are products of social construction and social understandings. Any deviation from these gendered roles leads to social stigmatisation.

For example, a commonly held stereotype is that women are more nurturing and better suited to care for others. While the reality is people of all genders are equally suited to the task of caring for others.

C) Stereotypes concerning sex and sexual violence

Assumptions are often made about a woman's character based on her expressive choices (e.g., the clothes she wears) and sexual history. These assumptions may also impact how her actions and statements are assessed in judicial proceedings.

Assumptions based on a woman's character or the clothes she wears diminish the importance of consent in sexual relationships as well as the agency and personhood of women.

For example, a commonly held stereotype is that women who dress in clothes that are not considered to be traditional want to engage in sexual relations with men. If a man touches such a woman without her consent, it is her fault. While the reality is the clothing of a woman neither indicates that she wishes to engage in sexual relations nor is it an invitation to touch her.

Why is it important for judges to avoid stereotypes?

Relying on predetermined stereotypes in judicial decision-making disregards the duty of judges to decide each case on its merits, independently and impartially.

In particular, reliance on stereotypes about women is liable to distort the law's application to women in harmful ways.

Even when the use of stereotypes does not alter the outcome of a case, stereotypical language may reinforce ideas contrary to our constitutional ethos.

Where the language of judicial discourse reflects antiquated or incorrect ideas about women, it prevents the transformative project of the law and the Constitution of India, which seek to secure equal rights to all persons, irrespective of gender.

It is important that judges not only avoid relying on stereotypes in their decision making and writing, but also actively challenge and dispel harmful stereotypes.

How will the Handbook on Combating Gender Stereotypes help judges?

The Handbook on Combating Gender Stereotypes will help judges to identify and avoid stereotypes by:

1. identifying language that promotes gender stereotypes and offering alternative words and phrases;
2. identifying common reasoning patterns that are based on gender stereotypes (particularly about women) and discussing why they are incorrect.
3. highlighting binding decisions of the Supreme Court of India that have rejected these stereotypes and can be utilised by judges to dispel gender stereotypes.

What is the significance of the Handbook on Combating Gender Stereotypes?

The handbook is a much-needed step towards **raising awareness among the legal fraternity** about the adverse impact of stereotyping language in judicial decision-making.

By highlighting the significance of choosing appropriate language, the Court adds its institutional influence to the increasing worldwide **recognition of the harm caused by the stereotyping** that is ingrained in and sustained by language.

For example, a **2020 study at Carnegie Mellon University** found that the cultural stereotyping in 25 languages about women being more suited to the domestic sphere, undermined gender equity efforts in STEM careers.

Language articulates consciousness, and changing words is crucial to changing thoughts. Words used in court have material power over our lives.

Terms like housewife, chaste woman, or mistress carry **social judgment**. They paint a picture of the male as the provider, and the 'good' female as dependent and docile.

The handbook may be a guide for judges and lawyers, but it could also be a **catalyst for change** right down to the societal level.

Conclusion

Women have historically faced numerous prejudiced beliefs and stereotypes, impeding their access to fair and equal treatment within society and the justice system. The Indian judiciary must recognise the deep-rooted impact of gender stereotypes and actively work to dismantle them from its thinking, decision-making, and writing. By consciously avoiding the use of stereotypes in decision-making and stereotype promoting language, the judiciary can foster an environment where gender equality is upheld and respected.

Sources: [The Hindu](#), [Indian Express](#), [Times of India](#), [Handbook on Combating Gender Stereotypes](#)

Animal Husbandry in India: Explained, pointwise

Introduction

In recent years, animal husbandry, rather than crop cultivation, is emerging as a reliable source of livelihood and income for farmers. If this trend continues, livestock husbandry would replace crop farming as the mainstay of the farm business, instead of being merely a source of supplementary income. India has vast resources of livestock and poultry, which play a vital role in improving the socio-economic conditions of rural masses.

There are about 303.76 million bovines (cattle, buffalo, mithun and yak), 74.26 million sheep, 148.88 million goats, 9.06 million pigs and about 851.81 million poultry as per 20th Livestock Census in the country.

What are the reasons for growth in animal husbandry in India?

One of the main reasons is the growing threat to crops from climate change-driven weather uncertainties and other hazards. Animal farming can hedge these risks to a significant extent.

Besides, the demand for animal products, such as milk, meat, and eggs, is growing faster than plant-based foods, due to rising income and changing food habits. This has made livestock husbandry more lucrative than crop farming.

What is the significance of animal husbandry in India?

Economic contribution: According to the Economic Survey 2022-23, the livestock sector grew at a compound annual growth rate (CAGR) of 7.9 per cent during 2014-15 to 2020-21 (at constant prices), and its contribution to total agriculture Gross value added (GVA) (at constant prices) has increased from 24.3 per cent in 2014-15 to 30.1 per cent in 2020-21.

Socio-economic development: Since the bulk of establishments in this sector is concentrated in rural India, this sector is relevant for the socio-economic development. About 87.7% of the livestock is owned by farmers of marginal, small and semi-medium operational holdings. The animal husbandry and dairy sector provides around 50 % direct & indirect employment to women in the country which is the highest for any sector in the economy.

Employment: Agriculture being seasonal in nature could provide employment for a maximum of 180 days in a year. The landless and less land people depend upon livestock for utilizing their labour during lean agricultural season. The animal husbandry and dairy sector collectively employs more than 100 million people. The milk industry alone supports some 80 million dairy farmers.

Food and income security: Animal husbandry play an important role in ensuring household-level food and income security. Even when crops fail, due to adverse weather or other reasons, animals continue to provide food and income through milk, eggs, wool, or meat. Under the worst circumstances, even live animals can be sold to generate cash.

What are the success stories of animal husbandry in India?

Dairy: India ranks first in milk production in the world. Its milk output of 221 million tonnes in 2021-22 accounted for nearly 23 per cent of global milk supplies. Per capita milk availability in India, about 444 grams per day, is far higher than the global average of 394 grams. In fact, milk is now the country's largest agricultural commodity, surpassing rice and wheat in terms of both volumes and value of production.

Poultry: India ranks third in egg production. The poultry industry has registered a CAGR of over 6 per cent. The output of eggs in 2020-21 was estimated at 130 billion, amounting to a per capita availability of around 95 eggs per year.

Meat: India ranks eighth in meat production in the world. Meat production touched a record 9.29 million tonnes in 2021-22. Significantly, the export of animal products has also been increasing. The meat of buffaloes, sheep, and goats, besides poultry and dairy products, is the major export item. Buffalo meat alone accounted for nearly two-thirds of the export of animal products.

What are the challenges regarding animal husbandry in India?

Productivity: Despite the fact that India possesses highest livestock, the productivity, particularly of ruminants has been extremely low, turning this precious asset of the poor into a liability. The average annual milk yield of Indian cattle is 1172 kg which is only about 50 per cent of the global average.

Diseases: There has been a surge in the prevalence of contagious diseases among animals, the most recent example being the outbreak of lumpy skin disease (LSD) affecting cattle in several states. Persistent outbreaks of diseases such as Foot and Mouth Disease, Black Quarter infection, Influenza, and others continue to have detrimental effects on livestock health, leading to reduced productivity.

Feed and fodder scarcity: The shortage and, consequentially, high cost of feed and fodder is a significant challenge. While natural pastures and common grazing grounds are either vanishing or shrinking in size due to encroachments and degradation of their vegetative cover, the prices of cultivated fodders are rapidly increasing. The Jhansi-based Indian Grassland and Fodder Research Institute estimates the deficit of green fodder, dry fodder, and the grains-based concentrated animal feeds to be as high as 12 per cent, 23 per cent and 30 per cent, respectively.

Inadequate policy support: The bulk of the agricultural subsidies by the central and state governments goes to the crops sector. For example, in the 2023-24 Union Budget, while well over Rs 4 trillion has been set apart for food, fertiliser, and other agricultural subsidies, the allocation for the Department of Animal Husbandry and Dairying is merely Rs 4,328 crore. Moreover, animal products do not enjoy the kind of price and marketing support that many crop-based commodities do by way of minimum support price and official procurement.

Institutional finance: The share of livestock in the total agricultural credit has hardly ever exceeded 4% in the total (short-term, medium-term and long-term). The institutional mechanisms to protect animals against risk are not strong enough. Currently, only a small proportion of the animal heads (excluding poultry) are provided insurance cover.

What are the government initiatives for animal husbandry in India?

Rashtriya Gokul Mission (RGM) is being implemented for development and conservation of indigenous bovine breeds since December 2014. The scheme is important in enhancing milk production and productivity of bovines to meet growing demand of milk and making dairying more remunerative to the rural farmers of the country.

Animal Husbandry Infrastructure Development Fund (AHIDF) worth ₹15,000 crore was launched in 2020 as a part of the Aatmanirbhar Bharat (ANB) stimulus package. Under this scheme, the Central Government provides a 3 per cent interest subvention to the borrower and credit guarantees up to 25 per cent of total borrowing.

National Livestock Mission (NLM) scheme has been restructured for 2021-22 to 2025-26. The scheme focuses on entrepreneurship development and breeds improvement in poultry, sheep, goat and piggery, including feed and fodder development.

Livestock Health and Disease Control (LH&DC) Scheme is being implemented to supplement the State/UT governments' efforts towards preventing, controlling and containing animal diseases of economic and zoonotic importance by vaccination.

National Animal Disease Control Programme (NADCP) is being implemented to control Foot & Mouth Disease and Brucellosis by completely vaccinating cattle, buffalo, sheep, goat and pig populations against Foot & Mouth Disease and bovine female calves of 4-8 months of age against brucellosis.

What should be the way forward?

Livestock productivity should be improved by **good breeding, health care, and feeding practices**.

There is need to **ensure adequate feed and fodder at affordable prices**. In India, 501 million metric tons (MMT) of crop residues are generated annually out of which 70% are from cereal crops (rice, wheat, maize and millet). Niti Aayog has said that crop residues from rice and wheat crops can be used as fodder for animals.

To manage livestock diseases, **mandatory primary vaccination** for livestock should be enforced, and timely veterinary surveillance must be carried out consistently.

Efforts should be made to guarantee sufficient vaccine production, establish vaccination infrastructure, maintain high vaccine quality standards, and adhere to a well-structured vaccination schedule.

Sources: [Business Standard](#), [Economic Survey 2022-23](#),

Drug Abuse in India: Explained, pointwise**Introduction**

Recently, an investigation by Indian Express has revealed that a epidemic of drug addiction, mostly affecting young men, is sweeping across Kashmir. Drug abuse is a significant social and health issue in India. India's diverse population, large youth demographic, and economic disparities contribute to the complex nature of drug abuse in the country. Changing cultural values, increasing economic stress and dwindling supportive bonds are leading to initiation into substance use.

What is the magnitude of drug abuse in India?

According to the Ministry of Social Justice and Empowerment's report on the "**National Survey on Extent and Pattern of Substance Use in India**" (2019), the magnitude of substance use is:

- 16 crore people (14.6%) between the age of 10 and 75 years are current users of alcohol, and out of them, 5.2% are alcohol dependents.
- About 3.1 crore individuals (2.8%) are cannabis users, and 72 lakh (0.66%) people suffer from cannabis problems.
- Overall opioid users 2.06% and nearly 0.55% (60 lakh) require treatment services/health
- 18 crore (1.08%) are current users of sedatives (non-medical use).
- 7% of children and adolescents are inhalant users as compared to adults of 0.58%. Nearly 18 lakh children need help for inhalant use.
- It is estimated that about 8.5 lakh people are injecting drugs

The most worrying category of drugs in India are **opioids**, with the prevalence of opioid use in India being three times the global average (0.7% Vs 2.1%). Across all the drug categories, drugs in the opioid group (particularly heroin) are associated with the highest rates of disease, death and disability.

India's location between the **Golden Crescent** (Iran-Afghanistan-Pakistan) and the **Golden Triangle** (Thailand-Laos-Myanmar) provides easy access to opioids.

The World Drug Report, 2022, ranked India **fourth** in terms of the quantity of seized opium in 2020, with a total of 5.2 tons confiscated. Additionally, India was ranked third for the amount of seized morphine in the same year, totaling 0.7 tons.

What are the impacts of drug abuse?

Health Consequences: Drug abuse can lead to a range of physical health problems, including liver disease (from alcohol), infectious diseases (due to sharing needles in injection drug use), and overdose-related deaths. Also, substance abuse is closely linked to mental health disorders such as depression and anxiety. It can exacerbate existing mental health issues or lead to the development of new ones.

Social and Family Impacts: Drug abuse can lead to family breakdowns, increased conflicts, and emotional trauma within families. Children in households affected by drug abuse may experience neglect, abuse, and disrupted education, affecting their overall well-being. Individuals struggling with drug addiction often face social stigma, which can hinder their recovery and reintegration into society.

Economic Consequences: Families often face financial hardships due to the costs of supporting a family member's addiction and the associated medical expenses. With most drug users being in the productive age group of 18–35 years, drug addiction can lead to absenteeism and reduced productivity in the workplace.

Crime: An increase in violence and crime is the direct impact of drug abuse. Addicts resort to crime to pay for their drugs. Drugs remove inhibition and impair judgement, encouraging one to commit offences. The incidence of eve-teasing, group clashes, assault, and impulsive murders increases with drug abuse.

What are the challenges associated with drug abuse in India?

Lack of Awareness and Education: There is limited awareness about the risks of drug abuse and its consequences among the general population, particularly in rural areas. Also, educational programs in schools and communities to inform people, especially young individuals, about the dangers of drug abuse are insufficient.

Stigma and Discrimination: Stigmatization of individuals with substance use disorders can discourage them from seeking help and support. Discrimination in healthcare facilities and society at large can hinder access to treatment and rehabilitation services.

Limited Access to Treatment and Rehabilitation: There is a huge shortage of drug addiction treatment facilities and qualified healthcare professionals.

Inadequate Research and Data: There is limited research on the prevalence and patterns of drug abuse in India, which hampers evidence-based policymaking and program development. There are also challenges in collecting accurate data due to the hidden and stigmatized nature of drug abuse.

Easy availability of drugs: India's geographic location close to major opium producing regions leads to easy availability of these drugs. Also, according to the Narcotics Control Bureau (NCB), there is a growing trend of using the 'dark net' and cryptocurrency for illicit drug trade.

New substances: The consumption of new psychoactive substances is increasing in India, and these substances often fall outside the scope of existing drug control regulations, posing challenges for law enforcement agencies to effectively monitor and regulate them.

What are the government initiatives to tackle drug abuse in India?

Laws: The broad legislative policy is contained in the three Central Acts, viz. Drugs and Cosmetics Act, 1940, The Narcotic Drugs and Psychotropic Substances Act, 1985, and The Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act, 1988.

Narcotics Control Bureau (NCB): It is the nodal agency for drug law enforcement in India. It was established in 1986 to coordinate drug law enforcement efforts across the country.

National Narcotics Coordination Portal: The multiplicity of stakeholders in Drug Law Enforcement has necessitated coordination between various agencies on real time basis. The Ministry of Home Affairs has constituted a four-tier coordination mechanism for increasing coordination amongst the nationwide stakeholders from grass root level to apex level and effectively combating the menace of drugs. The Apex NCORD, Executive NCORD, State NCORD and District CORD are four pillars of mechanism.

Integrated Rehabilitation Centers for Addicts (IRCA): The Ministry of Social Justice and Empowerment (MoSJE) provides financial assistance to NGOs and voluntary organizations for the maintenance of Integrated Rehabilitation Centers for Addicts (IRCA). These centers offer comprehensive rehabilitation services to individuals with substance abuse disorders.

National Action Plan for Drug Demand Reduction (NAPDDR): The MoSJE launched the NAPDDR for 2018-2025. The Plan aims at reduction of adverse consequences of drug abuse through a multi-pronged strategy.

Nasha Mukh Bharat Abhiyaan/Drugs-Free India Campaign: It was flagged off on 15th August 2020 (Independence Day) for 272 districts across 32 State/Union Territories that have been identified as the most vulnerable in terms of usage of drugs in the country. It is operational with the involvement of more than 500 voluntary organizations across the country, which are assisted financially under the NAPDDR scheme.

International Treaties: India is signatory to various international treaties and conventions to combat the menace of drug abuse like UN Convention on Narcotic Drugs (1961), UN Convention on Psychotropic Substances (1971), UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988) and UN Convention against Transnational Organized Crime (UNTOC) 2000.

What should be done to tackle drug abuse in India?

Scientific evidence-based treatment needs to be made available at adequate scale for people with substance use disorders.

The government should take measures to **strengthen the law enforcement agencies** involved in drug control, including Customs, the Narcotics Control Bureau, and state police forces. This can include providing them with better training, technology, and resources.

Socio-economic factors like poverty, unemployment, and lack of education can contribute to drug abuse and trafficking. Therefore, the government can address these issues through poverty reduction measures, employment generation schemes, and increasing access to education.

Reducing demand for drugs can be done through community-based prevention programs, education, and awareness campaigns.

Conclusion:

Addressing drug abuse requires a holistic and multi-pronged approach that includes prevention, education, treatment, harm reduction, policy reforms, and increased community involvement. Collaboration between government agencies, healthcare providers, NGOs, and the community is essential to mitigate the impact of drug abuse in India.

Sources: [Indian Express](#), [MoSJE Report](#)

[Yojana August 2023 Summary] Integrated approach for holistic well-being – Explained, pointwise

Introduction

India's healthcare landscape witnessed a remarkable transformation since the last decade as the Government focused on assured universal healthcare for all. Following the philosophy of Antyodaya- leaving no one behind and providing services to the last person in the queue, the government has emphasized improvement of public health facilities through ongoing systemic reforms and provide free of cost quality services at people's doorsteps. The government is adopting a comprehensive approach in the healthcare system and focusing on both health and wellness.

Nation-building is successful when the population is healthy, which in turn contributes to healthy societies and national productivity. To continually keep pace with the political, economic, demographic, and epidemiologic transitions, evidence-based health policies and strong health systems are crucial. Therefore, it is important to create a responsive health system that enables its citizens to live productive lives and build healthy societies.

Continuum of care

The healthcare system provides a continuum of care through the primary, secondary, and tertiary levels. The three levels of care are intricately linked, and their interdependence is essential to ensure health for all. For instance, the National Rural Health Mission (NRHM), now known as the National Health Mission (NHM) initially adopted a targeted primary care strategy, with a specific emphasis on Reproductive and Child Health and communicable diseases, especially among vulnerable groups. Regardless of major gains, a shortcoming was that the programme was unable to address growing burden of non-communicable diseases.

Ayushman Bharat

The Ayushman Bharat initiative was launched in 2018, comprising Health and Wellness Centres (AB-HWCs) and the Pradhan Mantri Jan Arogya Yojana (AB-PMJAY). It has been instrumental in addressing healthcare challenges and reducing healthcare costs. AB-HWCs deliver comprehensive primary healthcare services and wellness activities to the community, while PIVJAY offers free hospitalisation and inpatient services to the poor and vulnerable.

AB-HWCs were operationalised closer to the community to deliver Comprehensive Primary Health Care (CPHC) and promote wellness activities. Since its launch, the AB-HWCs have had a cumulative footfall of 172.13 crore.

Under the PMJAY, financial protection is provided to 40% of the eligible population across 33 States and Union Territories. Over 23 crore Ayushman cards were created, and it has empanelled over 28,368 hospitals to provide a higher level of care. Since its launch, PMJAY has successfully authorised over 5 crore admissions, amounting to over Rs 61,807 crore; thus, saving lives and easing the financial burden of the poor.

Digital Transformation

The Ayushman Bharat Digital Mission (ABDM) was launched to develop and support the integrated digital health infrastructure of the country. The Mission creates digital health ecosystem through the creation of Ayushman Bharat Health Accounts (ABHA). Earlier, patients had to travel long distances to avail themselves of specialist care or go to private providers. Now, e-health initiatives like eSanjeevani services available at over 1.11 lakh AB-HWCs have reduced the gap in care access and brought specialist care closer to home. eSanjeevani has catered to 9 crore teleconsultations, where over 57% of beneficiaries were women and 12% were senior citizens.

Pandemic Response and Preparedness

India's response to the Covid-19 pandemic showcased its global leadership and resilience. The nation rapidly expanded its testing capacity. The Atmanirbhar Bharat initiative facilitated competition in the diagnostic market and brought down the cost of diagnostic commodities.

Based on the learnings from the pandemic, the country opted for a 'whole of society' approach to develop a holistic health ecosystem across levels of care through the largest pan-India infrastructure scheme—the Pradhan Mantri Ayushman Bharat Health Infrastructure Mission (PMABHIM). PMABHIM focuses on advancing the capacities of health institutions across all levels of care.

Ayushman Bharat is a transformative initiative that provides essential support to strengthen the public health infrastructure for effective crisis management while ensuring the uninterrupted provision of routine and vital healthcare services at all levels.

Human Resources for Health (HRH)

The Government has made significant progress in increasing medical and nursing education capacities. The number of undergraduate and postgraduate medical education seats has grown substantially. The country currently has over 1.07 lakh undergraduate seats for medical education. There has been a 67% increase in medical colleges, a 93% increase in undergraduate seats, and a 105% increase in postgraduate seats. The Government has also recognised nursing institutions for various programmes, and now almost 1.25 lakh nursing graduates are entering the healthcare workforce annually. The Government has approved the establishment of 157 new nursing colleges in co-location with the existing medical colleges established since 2014. The step will add approximately 15,700 nursing graduates every year.

Immunization and Disease Control

The Universal Immunization Programme has converted immunization into a people's social movement. Through Mission Indradhanush, many additional vaccines were delivered through

routine immunization services, improving the immunization coverage from 62% (2015-16) to 76.4% (2019-21). Additionally, consistent efforts to reduce the burden of communicable diseases have yielded 85.3% reduction in malarial cases between 2014 and 2021. The extensive resources and infrastructure for routine immunization made the largest Covid-19 vaccination drive in the country a phenomenal success across the globe.

Pradhan Mantri TB-Mukt Bharat Abhiyan aims to raise awareness about free-TB treatment available at Government health facilities. The Government has introduced Ni-kshay 2.0, a unique platform that enhances patient support and community engagement.

Mental Health and Well-being

The National Mental Health Survey of India highlighted a 70-92% treatment gap for various mental health disorders. In response, the Government introduced Tele-MANAS, the digital arm of the District Mental Health Programme. With 42 established Tele-MANAS cells, the initiative has already received over 1.5 lakh calls. Providing anonymous support helps individuals seek assistance for their mental health concerns while reducing the associated stigma.

Acknowledging the Benefits of Traditional Medicines

Recognising the effectiveness of traditional medicine in managing chronic conditions and promoting well-being, the Government has taken steps to integrate these practices into the mainstream healthcare system. This has led to the development of standardised protocols, evidence-based guidelines, and safe and effective traditional medicine formulations.

The Ministry of AYUSH collaborates with allopathic institutions, research organisations, and healthcare professionals to facilitate an integrated approach to healthcare delivery. Establishing AYUSH Wellness Centres across the country has made traditional medicine accessible to a wider population, complementing allopathic healthcare services.

Conclusion

In the past decade, there has been a significant increase in per capita Government health expenditure, witnessing a growth of 74%. Additionally, Government-financed health insurance has experienced a substantial rise of 167%. Moreover, there has been a notable decline of 16 per cent points in out-of-pocket spending on health since FY 2013-14. These statistics demonstrate concerted efforts to strengthen the healthcare system and alleviate the financial burden on individuals seeking medical services.

[Yojana August 2023 Summary] Vision For Industry: Explained, pointwise

Introduction

India has become a major player in the global economy and it is time for the country to realise its potential and emerge as a world leader in this post-Covid New- World Order. According to a FICCI-McKinsey report, by 2047, a growing India is expected to become a high-income nation with six times its current per capita income and to create 60 crore jobs to gainfully employ its growing workforce. Achieving this potential will make India an approximately Rs 1500 lakh crore (\$19 trillion) economy in real terms by 2047, with the economy growing at a real GDP growth rate of 7.7 percent. Industry will be the key lever to propel the economy towards this goal.

Favourable environment

Recent policy reforms like the **GST**, the launch of **the National Single-Window System**, and **production-linked incentive (PLI) scheme** have created a favourable environment for industrial growth.

The Centre's other key initiatives, like the **PM-Gati Shakti and National Logistics Policy**, have also provided a facilitating environment for India's manufacturing ecosystem to boom.

Manufacturing has the highest potential of all sectors to propel job growth, with the potential to create **60 million to 70 million jobs by 2030**.

India could also boost its **real GDP growth rate for manufacturing to 9-10%** (from 7-8% in 2022). At the same time, India could aim to boost overall **manufacturing productivity fivefold** by 2030 (by tripling labour productivity and doubling capital productivity).

New-age Factory of the World: India's chance to shine amid shifts in global supply chains

With the Covid-19 pandemic highlighting the vulnerabilities in concentrated supply chains, businesses worldwide are exploring **alternative sourcing options to enhance their supply chain's resilience**. India could capitalise on this opportunity and capture an increased share of key global supply chains valued at between \$800 billion and \$1.2 trillion by 2030.

The Government has selected a diverse set of sectors for PLI incentives. It has selected **multiple new-age sectors** such as mobile phones, Advanced Chemistry Cell (ACC) batteries, high-efficiency solar PV modules, and drones. These new-age sectors would help India **gain prominence as a manufacturing hub**.

For instance, supported by the policy thrust, India has become the **second-largest mobile phone producer** in the world. Smartphones are now the fifth-largest export item in India's export basket accounting for more than US\$ 11 billion.

The aim should be to further **increase India's presence in five to six specific global value chains** (e.g., electronics, chemicals, medical devices) by developing **port-proximate clusters** like the Mumbai—Thane—Raigad cluster for electronics and chemicals. State governments could support efforts by creating **plug-and-play cluster zones** based on their manufacturing strengths.

Multi-modal logistics parks being set up in several cities under the government's 'Bharatmala' project could become world-class, **efficient logistics zones for manufacturing** (for example, electronics and aeronautics in Nagpur).

Additionally, adopting **contract manufacturing** to raise capacity utilisation to over 80%, launching **supplier development programmes** (e.g., innovation grants), and facilitating **single-window clearance** could raise India's presence in these specific global value chains.

Embracing the Digital Revolution in Manufacturing

As per a recent **NASSCOM report**, the Indian manufacturing industry spent between US\$ 5.5 and US\$ 6.5 billion on Industry-4.0 solutions in FY21, driven by a combination of government regulations and private sector investments. Both large and small to medium-sized manufacturing businesses have the opportunity to transform their production processes by **harnessing technologies such as IoT, AI, big data analytics, and robotics**.

Digitisation could improve reliability and value chain resilience. Technology grants and international joint ventures could help secure technology expertise. The ongoing 5G rollout would also play a key role in their transformation to 'smart manufacturing'. The key 5G use cases for Industry 4.0 include Connected Asset Monitoring, Connected Warehouses, Predictive Maintenance, Logistics and Fleet Management, and Quality Management.

Focus should be on **technology development to support manufacturing industries.** Also, a workforce with the right skills and capabilities would be essential. Support for **skilling and upskilling** initiatives will be needed for manufacturing MSMEs. India needs to invest in robust skill development programmes and collaborate with educational institutions and industry bodies to bridge this skills gap. Additionally, the government must incentivise technological investments, boost R&D, and expand institutional capacity. These elements could speed India's industrialisation.

Leaping towards Sustainable Manufacturing Future

Manufacturing's **environmental impact**, with GHG emissions and pollution, makes sustainability imperative. Customers seek **eco-friendly practices** and partners committed to green policies. Besides environmental responsibility, **manufacturers benefit financially and enhance global competitiveness** by prioritizing sustainability. Continuous innovation is essential to minimize environmental harm while pursuing industrial growth.

The Government is promoting sustainable manufacturing through initiatives like '**Zero Defect-Zero Effect**' and '**Digital India.**' Manufacturers should **prioritize green alternatives**, like bio-based materials and sustainable packaging, and work together to **define industry standards for green labels and auditing processes** for green products. **Leveraging digital technologies and Industry 4.0** can align industrial processes with sustainability goals, fostering long-term economic benefits by creating efficient, environmentally friendly manufacturing systems.

Strengthening Infrastructure

India faces challenges in the **efficiency and cost of goods movement** in its industrial value chains. To address this, the government has initiated programs like the **Industrial Corridor Development, PM Gati Shakti Master Plan and the National Logistics Policy.**

Additionally, state and central governments could strengthen infrastructure in key manufacturing hubs through **PPPs and special-purpose vehicles and expand smart-city coverage.** Further, the sectors being considered for import localisation could be incentivised by providing plug-and-play infrastructure. Besides hard industrial infrastructure, **widespread State-sponsored urban infrastructure development** is crucial for leveraging the decoupling between China and the West.

Way forward

India has significantly enhanced its policy and regulatory framework, simplifying business establishment and growth. Ongoing reforms are set to accelerate, laying the groundwork for a world-class industrial sector that's efficient, productive, sustainable, and export-focused.

[Kurukshehra August 2023 Summary] Nutrition and Health in School Education:
Explained, pointwise

Introduction

Good nutrition and health in school education lay the foundation for learning and are an essential investment in the future for children. These can help to improve education outcomes, empower the learners to succeed, and promote inclusion and equity in education and health. Numerous studies have highlighted the significant connection between health and education. Good health and nutrition are essential to maximising educational potential.

Status of Health and Nutrition in Schools

Global research has demonstrated the **detrimental effect of malnutrition on cognitive development**, and on the overall productivity and economic development of a country.

Globally, **90% of countries have some form of school health and nutrition programs** as a prevalent approach to delivering health and social protection. According to research, the first 1,000 days of life is a critical window for child development. However, for early gains to be sustained and children to achieve their full potential, it is essential to support their health, nutrition, and development during the next 7,000 days of life, throughout middle childhood and adolescence.

The essential elements of the Global School health and nutrition include:

4. Policies and laws that provide an enabling environment at national, subnational, and school levels.
5. Education for health and well-being delivered through skills-based school curricula and extracurricular activities.
6. A school physical and socio-emotional environment that is safe, inclusive, and conducive to health, well-being, and learning.
7. School health and nutrition services and school feeding programmes that provide simple, safe and effective health interventions, and healthy school meals.

The recently released report '**Ready to learn and thrive**' highlights the significant impact and high returns of investments in school health and nutrition programmes. It urges governments to expand their initiatives to deliver a comprehensive and inclusive range of interventions. The major findings of the report are:

8. 9 in 10 countries in the world currently implement School Health and Nutrition programmes.
9. 3 in 5 countries include food and nutrition
10. More than 100 countries have school-based vaccination programmes.
11. 9 in 10 countries include physical education as a compulsory school curriculum subject.
12. 80% of countries now have a school feeding policy.
13. Nearly half of all children enrolled in primary schools receive school meals.

India has seen progress in child nutrition indicators but faces ongoing challenges. **The National Family Health Survey-5 shows improvements** in stunting (low height for age) (38.4% to 35.5%), wasting (low weight for height) (21.0% to 19.3%), and underweight (low weight for age) (35.8% to 32.1%) among children under 5. These issues reflect the issue of chronic under

nutrition, and are linked to poverty, maternal health, and inappropriate early-life care, hindering children's physical and cognitive development.

Policy Perspective on Health and Nutrition in Schools

Governments have realised that **school health and nutrition initiatives are wise investments**. They improve students' health, nutrition, and learning outcomes while also significantly advancing their communities and countries. The **pandemic has highlighted the critical role** that schools play in the physical and mental health, nutrition, and well-being of children and adolescents.

Addressing health and education together underlines all **Sustainable Development Goals** (SDGs). SDG 3 is related to good health and wellbeing while SDG 4 is related to quality education. The **National Health Policy (NHP) 2017** also envisages the attainment of the highest possible level of health and well-being for all ages and places greater emphasis on investment in school health.

The **National Education Policy (NEP) 2020 integrates education and health** by acknowledging the necessity of nutrition and regular exercise for effective learning. This includes regular health check-ups in schools, especially for 100% immunisation, and health monitoring through health cards. NEP has also recommended the provision of early childhood care and education to children below 5 years of age in preparatory classes in primary schools, and extends the mid-day meal programme to these students. Further, NEP recommended the provision of breakfast for school children in addition to mid-day meals.

Initiatives Undertaken in India

Pradhan Mantri Poshan Shakti Nirman (PM POSHAN): India's PM POSHAN (earlier mid-day meal programme) is rights based Centrally Sponsored Schemes under the National Food Security Act, 2013 (NFSA). Around 12 crore children studying in 10.84 lakh schools in all Government and Government-aided schools have been covered. The objectives of the scheme are to address hunger and education by:

14. Improving the nutritional status of children studying in Bal Vatika and classes I – VIII in Government and Government-aided schools and Special Training Centres (STCs).
15. Encouraging poor children, belonging to disadvantaged sections, to attend school more regularly and help them concentrate on classroom activities.
16. Providing nutritional support to children of elementary stage in drought affected areas during summer vacation and during disaster times.

Regular health checkup of children under Rashtriya Bal Swastha Karyakram has been conducted. Deworming medicine and Iron & Folic Acid (IFA) tablets are also provided to children. Evidence suggest that apart from enhancing school attendance and child nutrition, this scheme plays a very important role in fostering social values and equality.

School Health and Wellness Programme: The School Health Programme under AYUSHMAN BHARAT is envisaged to facilitate an integrated approach to health programming and more effective learning at the school level.

Mission Saksham Anganwadi and Poshan 2.0: It is an integrated nutrition support scheme. The programme aims to address the issues of malnutrition in children, adolescent girls, and pregnant women. The schemes of Anganwadi Services, Scheme for Adolescent Girls, and Poshan

Abhiyan have been realigned under the scheme to maximise nutritional outcomes. It has been organised to address three primary verticals: (1) nutritional support for women, children, and adolescent girls, (ii) early childhood care and education (3-6 years), and (iii) Anganwadi infrastructure including modernisation.

The services are currently being provided through 12.72 lakh Anganwadi Workers and 11.69 lakh Anganwadi Helpers to 951.35 lakh beneficiaries, of which 770.98 lakh are children under six and 180.37 lakh are pregnant women & lactating mothers. An ICT-enabled platform named Poshan tracker has also been designed for monitoring of Anganwadi Services.

POSHAN Abhiyaan: The overarching Scheme for Holistic Nourishment named 'POSHAN Abhiyan' (Prime Minister's Overarching Scheme for Holistic Nutrition) aims to reduce malnutrition in the country with an aim to achieve improvement in nutritional status of Children aged 0-6 years, adolescent Girls, pregnant women and lactating mothers in a time bound manner.

Poshan Bhi, Padhai Bhi: Centre's flagship programme 'Poshan Bhi, Padhai Bhi' will focus on Early Childhood Care and Education (ECCE) covering 13 lakh Anganwadis across the country. The aim is to make Anganwadi centres both nutrition hubs and education-imparting centres. The objective of this programme is to ensure holistic development of children under the age of 6 years, with focus on building skills in key development domains identified under NEP.

Way Ahead

Children are integral to a nation's future, and their health forms the bedrock of society. Schools play a pivotal role in fostering physical, emotional, and social development. School health and nutrition initiatives bolster vulnerable children, enhancing community human capital. Well-nourished students perform better, ensuring optimal learning and achieve their potential in life. Integrating health and nutrition interventions in education drives lasting growth, demanding collaborative, streamlined efforts for holistic child well-being.

India-Greece Relations – Explained, Pointwise

Introduction

Indian PM Narendra Modi after the conclusion of BRICS Johannesburg summit flew to Greece on his first state visit to this European-Mediterranean country. PM Narendra Modi's visit is the **first visit** to Greece by an **Indian PM in 40 years** since Indira Gandhi visited the country in September 1983.

What were the outcomes of the present visit?

The broad outcomes of the present visit as mentioned in the joint declaration of two leaders are as follows:

- 1. Elevation** of India-Greece cooperation to **strategic partnership**.
- Both countries shared their vision of a **free, open and rules-based Mediterranean Sea and Indo-Pacific** in accordance with the provisions of the UNCLOS.
- 3. Doubling** the **India-Greece bilateral trade** by 2030, which currently stands at 1.32 billion euros.

4. MOUs were signed in the field of research for **agriculture production, animal rearing, electronics and pharmaceutical sector.**
5. Early finalization of **Mobility and Migration Partnership Agreement(MMPA)** to facilitate **skilled migration** between the two countries.
6. Establishment of **direct flights** between the two countries to boost **tourism** and **connectivity.**
7. The two sides strongly **condemned terrorism** in all its forms and manifestations including **cross border terrorism.**

What is the history of India-Greece diplomatic relations?

Ancient History of India-Greece Relations

India and Greece have a long history of cultural and political interactions that dates to ancient times.

Ancient interactions between India-Greece started with **Alexander's campaign** in the 4th century BCE. Edicts of Ashoka mention the diplomatic, trade and cultural relations between **Seleucus I** and **Chandragupta Maurya.**

2nd century BCE marked a new era of **Indo-Greek cultural exchange** with the establishment of rule of Greek rulers **Demetrius I** and **Menander I** in the northwestern India.

Indo-Greek Period witnessed cultural exchanges in the fields of art, sculpture and architecture. **Bamiyan Buddha, Gandhara school and Greco-Buddhist art** are examples of ancient cultural exchanges between India and Greece.

Modern History of India-Greece Relations

India and Greece established diplomatic relations in **May 1950.** India opened its resident Embassy in Athens in **March 1978.**

What is the present status of India-Greece Relations?

India-Greece Political Relations

India-Greece political relationship has progressed smoothly over the last 65 years.

India and Greece **maintain diplomatic ties** and have engaged in various high-level visits including exchanges between heads of state and government officials. **Bilateral VVIP** visits have taken place regularly. **President A.P.J. Abdul Kalam** visited Greece in **April 2007.** Greek Prime Minister Kostas Karamanlis visited India in January 2008.

Greece supported India's bid for inclusion in the **NSG in 2008** and for inclusion in the **MTCR, Wassenaar arrangements and Australia Group** in 2016.

Greece participated with India in the **Six-National Delhi Declaration on Nuclear Disarmament** in 1985.

India-Greece held **Foreign Office Consultations in New Delhi on 20 September 2016** and discussion focused on various issues of bilateral, regional and international importance.

India-Greece signed the Framework Agreement on the **International Solar Alliance** during visit of EAM in 2021 which was ratified by the Greek Parliament on 15 March 2022.

India-Greece commercial Relations

Indian and Greece have been keen on increasing their commercial and investment contracts.

Greece looks for Indian investments in their program of **privatization of public assets**. Indian infrastructure company **GMR Group** has tendered a bid for upgradation and management of **Heraklion airport at Crete Island**.

Indian entrepreneurs assisted by ITPO and Ministry of Micro, Small and Medium Industries have regularly participated in the **Thessaloniki International Fair** held every year in **northern Greece**.

India-Greece Trade relations

Trade relation between India-Greece currently stands at 1.32 billion euros.

Main items of export from **Greece to India** are cotton, scrap (mostly aluminum, ferrous, copper and lead), marble and granite and calcium carbonate.

Main items of exports from **India to Greece** comprise petroleum products (jet fuel), automobile components and automobiles (cars and SUVs), flat rolled steel items etc.

India-Greece Defence and security relations

Bilateral defence cooperation received an impetus after the visit of Indian Defence ministers to Greece in 1994.

The **MoU on defence cooperation** was signed in **1998** during the Greek defence minister's visit to India after India tested its nuclear weapon.

Indian and Hellenic Air Forces participated in the '**Blue Flag**' exercise held in Israel in 2021.

Indian Air Force participated in the **multinational air exercise INIOCHOS-23** hosted by the Hellenic Air Force with four Su-30 MKI and two C-17 aircraft.

India-Greece Cultural relations

Cultural relations have deepened with time between India and Greece.

Cultural groups sponsored by **ICCR** regularly participate in Greek dance and music festivals and cultural events. ICCR also offers one scholarship every year to the Greek students to study in India.

Several organizations like **Indo-Hellenic Society for Culture and Development (ELINEPA)**, **Shantom Indian Dance Center**, **Art of Living Hellas**, **Brahma Kumari Center** are active in propagation and promotion of Indian culture in Greece.

What is the significance of India-Greece relations?

Greece holds a lot of significance for India. That is why there has been a constant push to deepen the relationship between India and Greece.

Geostrategic Significance

Greece with its **Piraeus port in the Aegean Sea** has the **potential** to serve as **India's gateway to Europe**.

India's growing connections with Greece serve as a **countermeasure** against **China's** expanding influence in the **Mediterranean region**.

India's efforts to **strengthen its relationships** with Greece and Armenia is to counter the challenges posed in the Mediterranean region by the trilateral alliance of Azerbaijan and Pakistan and Turkey.

India no longer relies solely on its traditional allies like Russia and Iran and instead is seeking **new alliances** with countries that share its interests such as Greece and Armenia to increase its influence in the Mediterranean region.

Greece can offer its support for the **Free and Open Indo-Pacific (FOIP)** initiative to promote peace, stability and freedom of navigation in the Pacific Ocean.

Geopolitical Significance

Greece has shown **support for India** on the **Kashmir issue** and **Pakistan-sponsored terrorism**.

India and Greece share common approach on many initiatives including **UN reforms** and the **Cyprus issue**.

Trade and Defence Significance

Greece is interested in attracting Indian investments and could potentially **assist** in the **Free Trade Agreement with the European Union**.

Greece is currently upgrading its **military arsenal and plans to invest €10 billion** over the next few years in the procurement of sophisticated aircraft and armaments. India can emerge as their major defence suppliers.

What are the Challenges in India-Greece Relations?

India's growing ties with **Greece** are **unsettling** for **Turkey, Azerbaijan, and Pakistan**. These three countries have been working together to strengthen their military capabilities and to counter India's influence in the Mediterranean, Middle East and Central Asia.

Greece is a member of NATO and Armenia is a traditional ally of Russia. By strengthening its ties with these countries India is sending a strong message to the informal triad led by Turkey.

India-Greece **economic relationship** needs to be strengthened further as the trade and investment is very low.

What should be the way forward for India-Greece Relations?

India-Greece **geostrategic and geopolitical relation** must be taken forward in a way so that India becomes a **major pole** of the emerging new international order uniting three major seas (Mediterranean Sea, Red Sea and Gulf) and three continents (Europe, Asia and Africa).

India-Greece **economic relation** must be taken forward to create alternative networks of financial flows over Eurasia.

India-Greece **military relation** must be taken forward with the signing of extensive military cooperation memoranda to lay the basis for joint exercises, technology and intelligence sharing.

Sources: [IDSA](#), [Financial Express](#), [Indian Embassy](#), [PIB](#)

BRICS-Plus – Significance and Implications– Explained, Pointwise

The **15th BRICS summit held in Johannesburg has been concluded**. The **most significant** outcome of this summit has been the expansion of BRICS, making it **BRICS-Plus**. 6 new countries have been added to the grouping, i.e., **Argentina, Egypt, Ethiopia, Saudi Arabia, Iran and UAE**. However, BRICS-plus has its share of advantages and disadvantages. BRICS-Plus also impacts India's position in BRICS. India's role becomes crucial in soft-balancing the BRICS-plus so that it does not become a Chinese talk shop.

What were other outcomes of the 15th BRICS Summit apart from BRICS-Plus?

17. Adoption of **Johannesburg II Declaration** which reflects key BRICS messages on matters of global economic, financial and political importance.
18. The first ever in person engagement with leaders of BRICS with the members of **BRICS Women's Business Alliance** which was an important step in women empowerment.
19. **BRICS Finance Ministers or central bank Governors** to consider the issue of local currencies, payment instruments and platforms and to report back to the BRICS leaders by the next summit.
20. Celebration of the 10th Anniversary of **BRICS Business Council** and vision was laid down for increasing interstate trade between member countries.

How were the 6 countries selected for membership of BRICS-Plus?

BRICS-Plus has been strongly pushed by China backed up Russia. Chinese want inclusion of countries which are under their **sphere of influence** to be included. India has been cautious of Chinese designs of making **BRICS plus a Chinese talk shop**. India has allowed for expansion of BRICS but has **insisted on finalization of membership criterion** for expansion at the earliest.

Argentina was brought in to **expand Latin American** representation.

Egypt given its excellent ties with China and India was a natural choice. **Ethiopia** was the result of a compromise between the claims of Nigeria and Kenya.

Saudi Arabia and UAE inclusion will help in recapitalization of the New Development Bank enhancing its capacity to finance development projects. **Iran's** entry reaffirms its strategic location as a bridge between West, Central and South Asia.

What are the advantages of BRIC-Plus?

Geo-political Advantages

BRICS-Plus has strengthened the **global south representative credentials** of BRICS. There has been an **expansion in the geographical footprint** of global south countries in BRICS. The grouping now has **three members in Africa** (South Africa, Egypt and Ethiopia), **five in Asia** (India, China, Saudi Arabia, Iran and UAE), **two in South America** (Brazil and Argentina) and **one in Europe** (Russia).

BRICS-Plus will **increase the political clout** of BRICS. The expansion of BRICS into BRICS-Plus will put **pressure on the west** to end its prolonged neglect of the global south.

BRICS-Plus presents a **non-Western alternative development model**. BRICS-Plus reinforces BRICS as an **emerging, powerful and influential non-Western bloc** and can counter groupings like G-7 which are dominated by the west.

Geo-economic advantages

BRICS-Plus can give **fresh impetus to de-dollarization goal** conceived by BRICS. BRICS-Plus countries can **reduce the use of dollars** in oil transactions. For example, Saudi Arabia can invoice its oil sales to China and India (accounting for 35% of Saudi's total oil sales) in yuan and rupees.

BRICS-Plus **represents** close to **45% of the world's oil production** capacity. It has six of the top 10 oil-producing countries of the world-Saudi Arabia, Russia, China, UAE, Brazil, and Iran. This can create an **alternative platform for engagement of oil exporting countries** apart from OPEC+.

BRICS-Plus will **strengthen** the financial position of **New Development Bank** with inclusion of countries like Saudi Arabia and UAE. This will help in **ensuring the finance of sustainable development projects** in Global South and will be an **alternative to Bretton Wood institutions** like WB and IMF.

What are the concerns around BRICS-Plus?

Geo-political Concerns

BRICS-Plus seems to be moving away from its **original geo-economic focus** and inching towards an **anti-West configuration**.

BRICS-Plus has a changed geo-political complexion with only four democracies in the new group of 11 countries. Human rights, peace and development goals of BRICS might not be achieved.

BRICS-Plus might make **BRICS less efficient**. There will be **difficulty in reaching consensus** on contentious issues and declarations given the wide ranging economic and political differences between the member countries.

Newly admitted member countries like **Saudi Arabia and Iran** in BRICS-Plus have deep sense of suspicion and animosity despite Chinese efforts to ensure peace between them. This may hamper the pursuance of a common goal of BRICS.

Geo-Economic Concerns

BRICS-Plus expanded size will make it **difficult to reach a consensus** on common **BRICS currency** and **BRICS payment platform**.

Intra trade and investments between the countries of BRICS-Plus remain low. Significant investments need to be made.

Ukraine-Russia war and post-COVID economic recoveries puts a challenge for BRICS-Plus to create an alternative economic order.

What are the reasons behind the Chinese-Russian push for BRICS Plus?

China and Russia are looking to **transform BRICS-Plus** as a **counter to US-led Multilateral system**.

China and Russia hope to create **new strategic and diplomatic space** for themselves through BRICS-Plus as both face Western sanctions and pressure.

China and Russia want to **project authoritarian regimes standing upto western democracies.**

What should be India's Role in BRICS-Plus?

India has allowed for expansion of BRICS but has **insisted on finalization of membership criterion** for expansion. India has asserted its heft in the recent meeting of BRICS.

India needs to **smartly play** the role of balancer in the forum to prevent **BRICS** from becoming a **Chinese-talk shop.**

India needs to develop consensus on **common BRICS currency** and **BRICS payment system.**

BRICS-Plus could lead to **increased trade and investment** between India and BRICS countries which would boost India's economy.

What is the significance of BRICS which has resulted in demand for membership of BRICS-Plus?

Representative of Multipolar Global Order- BRICS promotes the creation of multipolar world order with political and economic parity.

Representative of new world order- BRICS represents the idea of New World Order decoupled from the hegemony of western powers.

Representative of the 'Global South'- BRICS gave countries from the global south a platform to present their opinions on international issues and set an international agenda.

Alternative to Bretton Wood Institutions- World Bank, IMF which were a post WW II creation of the west represented the western economic agenda. BRICS represents the economic concerns, priorities and agenda of the developing and underdeveloped economies.

Forum to achieve economic Decoupling from the West- As BRICS represents 23% of Global GDP and 18% of world trade, it aims for de-dollarization of world trade through increased use of domestic currencies in economic transactions.

Enhanced cooperation for achievement of SDGs- BRICS as a forum serves to reduce poverty, alleviate hunger-malnutrition and achieve the sustainable development goals set up by the United Nations.

What are the challenges faced by existing BRICS that will be inherited by BRICS-Plus?

Expansion- China is pushing for inclusion of countries like Iran, Belarus which are under heavy debt trap influence of China. India views this push for expansion as attempt by China to make BRICS China centric platform.

Nature of Grouping- BRICS faces a challenge of either retaining its core nature as a group that is largely focused on financial and south-south challenge or becoming a bigger geopolitical coalition by admitting more nations.

Political Division- India-China dispute over territorial issues, disagreements between nations over UNSC reforms & drastically different political systems from active democracy in India to entrenched oligarchy in Russia to communism in China.

Economic Disparity- BRICS economies differ in their magnitude of economic size with countries like China and India leading in the economic ladder and countries like Brazil Russia languishing in the economic ladder.

Dominance of RIC- The marked dominance of big three Russia-China-India is a challenge for the BRICS as it moves ahead. To become a true representative of large emerging markets across the world, BRICS must become pan-continental.

Structural- Chinese economy has the largest share among the member countries and it accounts for 38 percent share in the total export of BRICS. This has resulted in dominance of China in the BRICS bloc and in turn has stoked the economic nationalism in other member countries.

Reform- BRICS has so far not succeeded in bringing reform in Bretton wood institutions like IMF and WB and has not been able to de-dollarize their economies.

Consensus- BRICS has faced consensus challenges on important international issues such as Russia-Ukraine war. While China is leaning towards Kremlin, India relied on its Non-Alignment Strategy and Brazil on only rhetoric.

What should be the way forward for BRICS-Plus?

BRICS-Plus **should be based on rule-based order** and the forum should not leave any room for **'economic hegemony' and 'anti-West agenda'**.

There must be a **clear definition of principles and criteria for membership** for further addition of countries to BRICS-Plus.

India must find creative ways of **blunting Chinese strategy** in BRICS-Plus to ensure **equitable distribution** of power in the group.

Changes to Industrial Policy in India –Explained, Pointwise

According to IMF, **“Industrial policy”** refers to government efforts to shape the economy by targeting specific industries, firms, or economic activities. This is achieved through a range of tools such as subsidies, tax incentives, infrastructure development, protective regulations, and research and development support.

Industrial policy was **widely used before liberalization and globalization** by the governments to protect and promote their domestic industrial sector. Liberalization and globalization of the world economy saw the **rollback of restrictive Industrial Policies** as it hindered the growth of world economy and global supply chains.

However, the path of Industrial Policy is rolling **back** to the pre-liberalization era. **Governments** across the world are convinced that by using **restrictive industrial policy** they can successfully steer their economies towards a greener, more resilient and more industrial future in the post-COVID world.

Recently **Indian Government** imposed **licensing requirements** on the import of computers. This is being seen as the **return of restrictive Industrial policy in India in a new form**. Return of restrictive Industrial Policy is not the case of India alone, it is being practiced **globally** today.

What has been the history of Industrial Policy in India?

Industrial Policy Resolution 1948 introduced **state control** over Indian industrial sector. These state control over the industrial sector was further strengthened by **Industrial Policies in 1956,1977 and 1980**.

But in **1991** with the introduction of **Liberalisation,Privatisation and Globalisation(LPG) reforms** state control over the industrial sector were relaxed. There was delicensing, dereservation and removal of regulations over the Industrial sector.

However, **Industrial Policy of India** in the **post-COVID world** is returning to the pre 1991 period with state exercising its control over the industrial sector once again.

What are the changes in Industrial Policy in India?

India is putting into a place an architecture of **production-linked incentives (PLIs)**. This ₹1.97 trillion production linked incentive (PLI)scheme is focused on incentivizing companies to increase domestic production across 14 sectors rather than manufacture products outside India.

India is imposing controls over the **terms of foreign investment** and use of **arbitrary tariffs** (such as on white goods) and **outright bans and licensing** (such as on laptops).

India is using **export duties regime** in agricultural sector. Recent decision of India imposing **export duties of 40%** on the export of onions. This marks the **return of restrictive industrial policy** in the agricultural sector.

India has **increased average tariffs** on imported products.WTO in its review of India's trade policy for 2021 pointed out that the country's **simple average tariff rate** had increased from **13% to 15.4% since 2015**.

What are the changes in Industrial policy globally?

Return of restrictive Industrial Policy has become a **global trend**. Given the **commitments to the WTO, governments** cannot raise import tariffs at will. Import tariffs have become less important as a tool compared to earlier decades. Governments have been using various policy interventions as part of industrial policy apart from tariffs.

Policy interventions being used by the countries as part of changing Industrial policies

Loan guarantees, trade finance, loans from the state and outright grants by the richer middle income and poorer countries to lower the cost of production for companies.

Use of non-tariff barriers to trade like governments setting **minimum quality standards for imports**.

Use of government budgets as **subsidies and tax concessions** in sectors like green energy and electric mobility sector. Among poorer countries, textiles and apparel figure prominently as sectors targeted for incentives.

How is the changing 'new' Industrial Policy different from the earlier industrial policies?

'New' industrial policies **are less inward looking**. These are today aimed at promoting exports rather than blocking off imports.

'New' Industrial policy uses **quid-pro-quo FDI policy** forcing foreign companies for technology transfer. New Industrial policy also uses **trade finance** to promote exports.

'New' industrial policy involves **close working relationship between state and industry**. There is a constant feedback mechanism between the two sectors.

What are the arguments in favour of the changes in Industrial trade policy?

Proponents of the return of restrictive industrial policy argue that the **government** has both the ability and the **duty to structure the economy in the national interest** since the free market may fail to do so. For example, manufacturing industries provide broad societal benefits such as stable and well-paid employment.

Proponents argue the need for a restrictive Industrial policy to **ensure domestic supplies of critical goods** such as medical supplies or military equipments for national security reasons.

Proponents also argue that restrictive Industrial policy aims to maintain **steady growth in productivity**, to **create more employment opportunities** and **match** the level of **international standards and competitiveness**.

What are the arguments against the changes in Industrial trade policy?

Critics of the return of restrictive Industrial policy counter that the government is worse at identifying successful firms than the free market and may lead to **crony capitalism**. (**Maruti controversy** in license raj India).

Critics argue that restrictive Industrial policy could lead to an even **greater concentration** of corporate power and would **stifle innovation and harm national security**.

Critics argue that restrictive Industrial Policy would bring back **state capitalism** and would stifle the growth of **world economy** and would **break global supply chains**. (For ex- Demand of semiconductor chips has increased due to inward looking industrial policy of China and Taiwan).

What lessons should India incorporate in its industrial policy from the successful Industrial Policy of East Asia?

India's Industrial policy must have greater **state capacity** and **expertise**. India must have specialists in our **industrial policy formulation**. For example, Japan's International Trade and Industry that oversaw industrialization and commerce had over 12,000 employees in the ministry in 1960 majority of whom were active in policy and administration.

India's Industrial policy must have an **open and transparent policymaking process** that involves experts. Japan has had experts in its committees on industrialization with very less govt representation.

India's Industrial policy must **allow the domestic private sector to collaborate, and access shared basic research and technology**. For example, Japanese conglomerates collaborated and shared the costs of large-scale technological upgrade projects. **Very Large-Scale Integration project launched in 1975** helped Japan take the pole position in semiconductor production from the United States.

India's industrial policy must have **high intra and inter-sector labour mobility**. India must learn from the **South Korean** experience of ensuring high labour mobility (keeping only the youth in manufacturing and letting older ones go to service sector) which increased their productivity.

India's Industrial Policy must be **supported by high levels of savings**. India can explore the option of **crypto taxes on bank deposits** and keeping **real interest rates higher** as was done in east Asian economies.

India's Industrial Policy must have **depoliticized private sector**. India must learn from the **East Asian** economies experience to avoid the Asian economic crisis of 1997.

What should be the way forward for the changing Industrial Policy?

All governments **use industrial policies**, and they always will. The questions should really evolve around what policies to use, what sectors to target and how to set up a mechanism by which governments learn from the experience of private industry and adapt.

“New’ Industrial policy must put its **focus away from the manufacturing sector to service sector** as **manufacturing sector’s contribution** in both **GDP** and **employment** has been **falling**.

Chandrayaan-3: Significance and Way Forward- Explained, pointwise

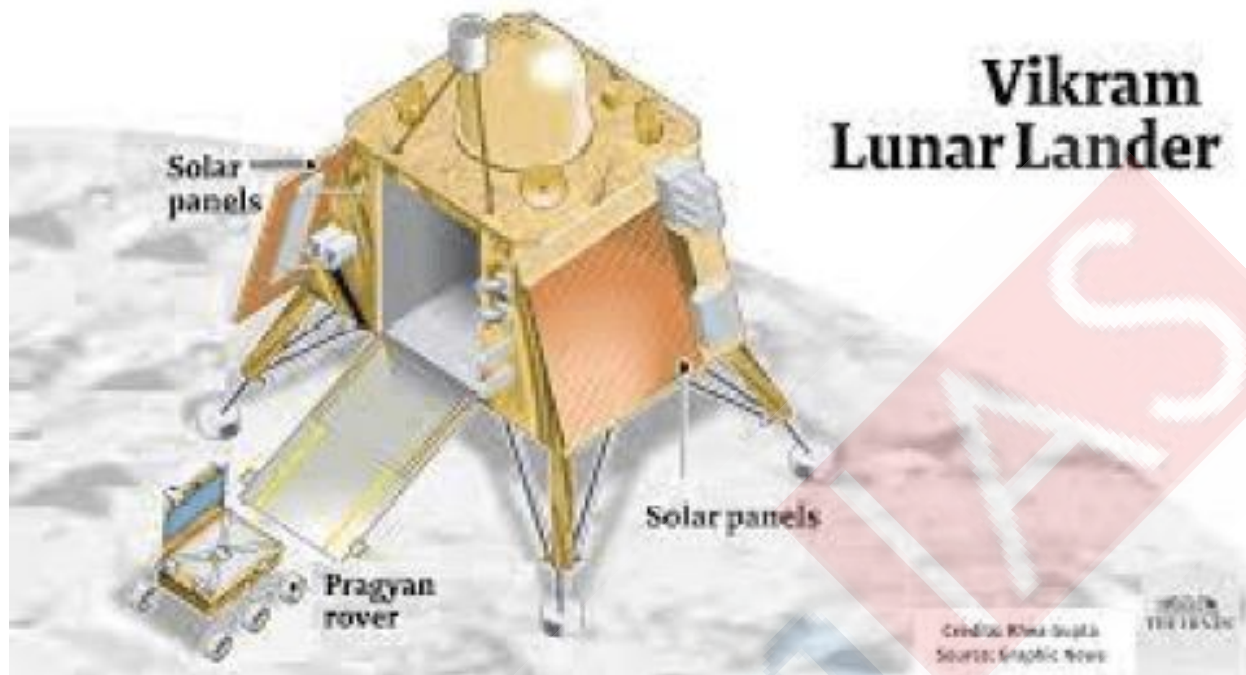
As **Chandrayaan-3** soft landed on the moon at **6.04 pm** on **23rd August** India became the **first country** to land a spacecraft in uncharted territory near the **lunar south pole**. India is only the **fourth country** in history to complete a soft landing on the Moon after the **United States, the Soviet Union and China**.

Prime Minister Narendra Modi announced that the point where the **Vikram lander** touched down on the lunar surface would be named **“Shiv Shakti”** and the crash site of the failed Chandrayaan-2 mission in 2019 as **“Tiranga point”**.

What is Chandrayaan-3 mission?

Chandrayaan-3 is a **lunar exploration mission** by the Indian Space Research Organisation (ISRO). It is the **third mission** in the Chandrayaan series, following Chandrayaan-1 and Chandrayaan-2. Chandrayaan-3 is a **follow-on mission** to Chandrayaan-2 to demonstrate end-to-end capability in **safe landing** and **roving on the lunar surface**.

Chandrayaan-3 consists of **Lander** and **Rover** configuration. The **lander** which made the soft landing on the moon is called **Vikram** and **Rover** which would explore the lunar surface is called **Pragyaan**.



Source- The Hindu

Chandrayaan-3 Mission was launched using the **LVM3 rocket system**.

Read more – [About LVM3](#)

What were the mission objectives of Chandrayaan-3 mission?

The mission objectives of Chandrayaan-3 were as follows-

- To demonstrate Safe and Soft Landing on Lunar Surface
- To demonstrate Rover roving on the moon
- To conduct in-situ scientific experiments

What are the components of Chandrayaan-3 Mission?

The Chandrayaan-3 Mission consists of two modules – The **propulsion module (PM)** and the **Lander module (LM)**.

The **main function** of **Propulsion Module (PM)** is to carry the **lander Module (LM)** from launch vehicle injection till final lunar 100 km circular polar orbit, where the LM separates from PM.

What are the different payloads used and what are their functions?

The different payloads used, and their functions are mentioned below-

Carrier of Payload	Name of Payload	Function of payload
Propulsion Module	SHAPE- Spectro-polarimetry of Habitable Planet Earth payload	SHAPE payload to conduct novel Spectro-polarimetric studies of Earth from lunar orbit. It will look for smaller planets that could be habitable in the reflected light.

Lander Module	ChaSTE- Chandra's Surface Thermophysical Experiment	ChaSTE to measure the thermal conductivity and temperature near the south pole.
	ILSA- Instrument for Lunar Seismic Activity	ILSA to measure the seismicity around the landing site and delineate the structure of the lunar crust and mantle.
	RAMBHA- Radio Anatomy of Moon Bound Hypersensitive ionosphere and Atmosphere LP- Langmuir Probe	RAMBHA and LP to measure the near surface plasma (ions and electrons) density and its changes with time
	LRA- LASER Retroreflector Array	LRA is a passive experiment to understand the dynamics of Moon system.
Rover payloads	LIBS- Laser Induced Breakdown Spectroscope	LIBS to derive the chemical Composition and infer mineralogical composition to further our understanding of Lunar surface and qualitative and quantitative elemental analysis.
	APXS -Alpha Particle X-ray Spectrometer	APXS to determine the elemental composition (Mg, Al, Si, K, Ca,Ti, Fe) of Lunar soil and rocks around the lunar landing site

What is the difference between Chandrayaan-3 and Chandrayaan-2?

Chandrayaan-3 has been designed incorporating the lessons from the crash landing of Chandrayaan-2 lander on the lunar surface. The difference between Chandrayaan-3 and Chandrayaan-2 are tabulated below:

Parameters	Chandrayaan-2	Chandrayaan-3
Launch Vehicle	GSLV MK III	LMV III
Lander Configuration	Chandrayaan-2 consisted of Vikram Lander and Pragyaan Rover.	Chandrayaan-3 has separate Lander Module (LM), Propulsion Module (PM) and a rover
Cameras	One lander hazard detection and avoidance cameras.	Two lander hazard detection and avoidance cameras which are more robust.
Landing Site	Chandrayaan-2 attempted to land near the lunar south pole specifically in the region called South Polar Region- Highland Fractured Terrain.	Chandrayaan-3 had no fixed landing site unlike Chandrayaan-2. Artificial intelligence was used to determine the landing site

		using the data from the more robust landing cameras.
Payload	Chandrayaan-2 did not have a specific payload.	Chandrayaan-3 carries a payload called SHAPE (Spectro Polarimetry of Habitable Planet Earth)
Design Methodology	Chandrayaan-2 had a success-based design.	Chandrayaan-3 had a failure-based design which means that if everything including sensors and electronics fail, Vikram would still make the soft landing.
Landing area target	Chandrayaan-2 target area of was 500 X 500m.	Chandrayaan-3 target area was kept at 4 km X 2.4 km so that the Lander had more options to choose the best target site on its own.
Orbiter	Chandrayaan-2 orbiter was placed successfully.	Chandrayaan-3 does not have a separate orbiter but is using the orbiter of Chandrayaan-2.
Design	<p>The weight of the payload of Chandrayaan-3 has been kept more than Chandrayaan-2 with the Lander having most of the extra weight for successful landing.</p> <p>The number of thrusters in Chandrayaan-3 has been decreased from five to four with no central thrusters.</p> <p>The legs of the Lander in Chandrayaan-3 were made sturdier to ensure that they could land even at a higher velocity.</p> <p>Use of additional solar panels in Chandrayaan-3 to ensure power generation after a soft landing regardless of the weather on the Moon.</p>	

Why did Chandrayaan-3 land on the near side of the moon?

Read More: [Why did Chandrayaan-3 land on the near side of the moon?](#)

What discoveries have been made by Chandrayaan-3 so far?

Two major discoveries made by Chandrayaan-3 so far since it has landed on the lunar surface.

Presence of Sulphur and oxygen-Laser-Induced Breakdown Spectroscopy (**LIBS**) instrument onboard '**Pragyan**' rover of Chandrayaan-3 has 'unambiguously confirmed' the **presence of sulphur** in the lunar surface near south pole. Other elements like **Aluminum (Al), Calcium (Ca), Iron (Fe), Chromium (Cr), Titanium (Ti), Manganese (Mn), Silicon (Si), and Oxygen (O)** are also detected.

Lunar temperature variation: Chandrayaan 3 has measured the **soil temperature** of the moon and revealed some interesting findings. The temperature ranges from **minus 10 degree celsius** to around **70 degree-celsius**. While **minus 10-degree was recorded at 80 mm under the ground** **60-degree temperature was recorded at around 20 mm above the ground**.

What is the significance of Chandrayaan-3 mission?

Scientific significance

Shift in India's space programme objectives: The Chandrayaan-3 mission signals a shift of focus of India's space programme. Earlier ISRO seemed focussed on **utilitarian objectives** like enabling telecommunications, telemedicine and tele-education, broadcasting, or setting up remote sensing satellites. But with the Chandrayaan-3 **space and planetary exploration** is becoming a priority for ISRO.

Boost to Future lunar space exploration: The success of Chandrayaan-3 will boost the future lunar mission, like **LUPEX** scheduled for 2024-25 and ISRO's collaboration with JAXA, which will explore the permanently shaded region of the moon. ISRO will also get a boost for the **International Lunar Research Station program** which will be a better alternative to **International space station** for conducting space experiments.

Boost to Gaganyaan and Aditya L-1 missions: The launch vehicle used for Chandrayaan-3 mission is **LVM-3**. It is the **heaviest launch vehicle** of India and the successful launch of Chandrayaan -3 mission through this vehicle gives a **boost to future Gaganyaan and Aditya L-1** missions which will be launched by this LVM-3 rocket.

Boost to future ISRO's Vision- ISRO can undertake several missions on the back of success of Chandrayaan-3 mission like launch of **satellites powered by electric motors, quantum communications, human space flight, reusable launch vehicles, planetary habitation and interplanetary communications**.

Economic Significance

Boost to India's push for "Space Industrialization"- The success of Chandrayaan-3 provides an opportunity for India to push for **Space Industrialization**. India can **extract extra-terrestrial mineral resources** and embark on deep space exploration.

Boost to the Indian space-tech ecosystem: The successful launch of Chandrayaan-3 could **bolster investor confidence** and attract **more private investment** in space technology. Chandrayaan-3 mission's success validates India's space industry to emerge as a **potential supplier for lunar programs undertaken by other countries**. **Make in India space program** will also gain success. **India's space economy** can reach **\$100 billion** by 2040.

Geo-political Significance

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 success of Chandrayaan-3 mission 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 success in space missions like Chandrayaan-3 provides India 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.

What are the challenges that Indian space sector faces despite Chandrayaan-3's success?

Technological Challenges – While **Chandrayaan** 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). ISRO faces technological upgradation challenges like **powerful launch vehicles with higher payload capacity and reach**.

Budgetary Challenges- ISRO 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 spaced space studies.

Government funded space missions-Some critics have argued that such massive spending by the **government alone** in these space missions 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.

Lack of robust Dispute Settlement Mechanism-This **discourages private investment** in the space sector. 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.

What should be the course of action for Indian Space sector to become a space superpower?

Despite successful missions like Chandrayaan-3 **India's share** in the total global space economy is **just around 2%**. India needs to adopt a multipronged approach to become a space superpower in 'Amrit Kaal'.

Push for privatization- India must frame its **space policy** to allow for greater private sector investment in field of space technology. 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 are already managing big constellations of satellites.

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.

ADITYA L-1 Mission – Significance and Challenges- Explained, pointwise

Aditya-L1 mission is the **first space-based Indian observatory to study the Sun**. It will be launched on **September 2** from Sriharikota. Aditya L1 is India's **second astronomy mission** after AstroSat which was launched in September 2015.

Aditya L-1 mission is **being led by ISRO** in **collaboration** with the Indian Institute of Astrophysics (**IIA**)-**Bengaluru**, Inter-University Centre for Astronomy and Astrophysics (**IUCAA**)-**Pune** and Indian Institute of Science, Education and Research (**IISER**) **Kolkata**.

What is ADITYA L-1 Mission and where will it be placed?

Aditya L1 will be launched using the Polar Satellite Launch Vehicle (PSLV) rocket. Aditya L-1 has **seven payloads (instruments)** on board to **study the Sun's corona, solar emissions, solar winds and flares, Coronal Mass Ejections (CMEs)** and it will carry out **round-the-clock imaging** of the Sun.

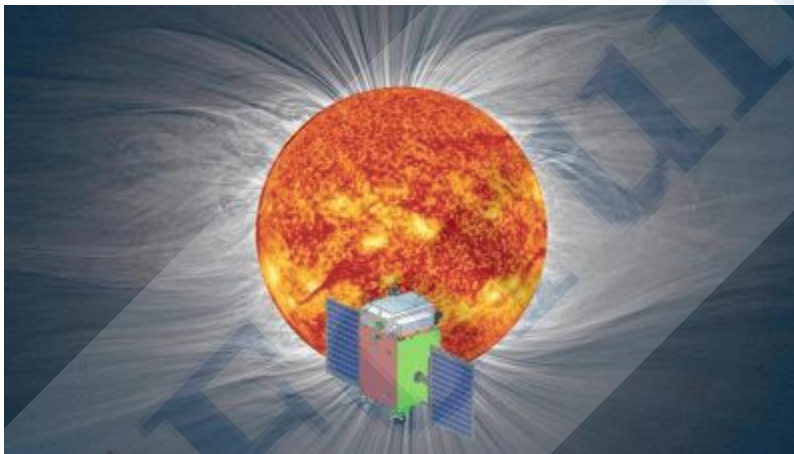


Photo:ISRO,CESSI,IISER Kolkata

Location of Aditya L-1 in space

Aditya L-1 spacecraft shall be **placed** in a halo orbit around the **Lagrange point 1 (L1)** of the Sun-Earth system which is about 1.5 million km from the Earth.

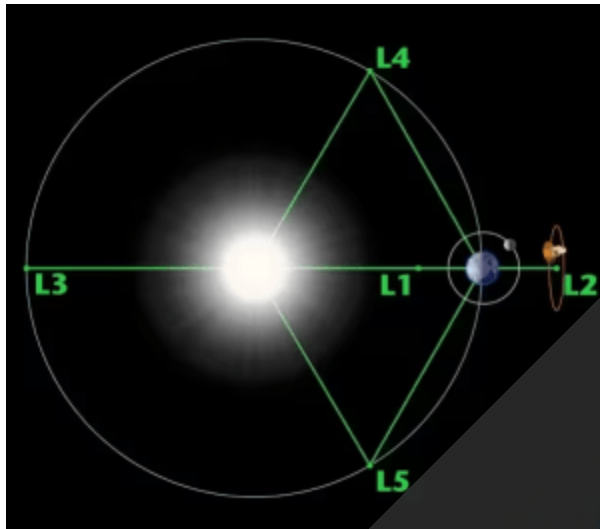
Lagrange Points

Definition-Lagrange points are special spots in space where the gravitational forces of two large objects such as Earth and the Sun perfectly balance each other.

Simplified Understanding of Lagrange Point-At Lagrange points the gravitational pull from Earth and the Sun (or any two large objects) cancels out. This creates a **point of equilibrium** where a smaller object such as a **satellite** can stay in a **stable position** without drifting away

or falling towards either of the larger objects. It's like finding a **sweet spot** in space where everything remains in balance thus making it **useful** for **space exploration** and **satellite placement**.

Reason for choosing L-1 point for Aditya L-1 mission- Aditya L-1's placement in the halo orbit around the L1 point has the **major advantage** of **continuously viewing the Sun** without any occultation/eclipses. This will provide a **greater advantage** of **observing solar activities** and **its effect on space weather** in real time.



The five Lagrange Points. Aditya L-1 will be placed in L-1. (Photo Courtesy:NASA)

What are the payloads (Instruments) part of Aditya L-1 and their functions?

Payload (Instrument)	Functions
Visible Emission Line Coronagraph (VELC)	Coronal imaging and spectroscopy
Solar Ultraviolet Imaging Telescope (SUIT)	Photosphere and Chromosphere imaging
Solar Low Energy X-ray Spectrometer (SoLEXS)	Soft X-ray spectrometer for Sun-as-a-star observation
High Energy L1 Orbiting X-ray Spectrometer (HEL1OS)	Hard X-ray spectrometer for Sun-as-a-star observation.
Aditya Solar wind Particle Experiment (ASPEX)	Solar wind/particle analyzer protons and heavier ions with directions
Plasma Analyzer Package for Aditya (PAPA)	Solar wind/particle analyzer electrons and heavier ions with directions
Advanced Tri-axial High Resolution Digital Magnetometers	Solar magnetic field study

What is the significance of Aditya L-1 Mission??

Understanding of the evolution of Earth due to Sun's Impact- All planets and exoplanets including the **earth evolve around the parent star (Sun)**. Changes in the Sun affect the

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evolution pattern of the planets. Aditya L-1 will help in **understanding these evolution patterns.**

Understanding of the changes of weather on Earth due to the Sun-The solar weather and environment which is determined by the processes taking place inside and around the sun affects the weather on Earth. Aditya L-1 will provide **knowledge about solar events** which will be key to **understanding space weather.**

Tracking of Earth Directed Solar Storms- Every Solar storm that emerges from the Sun and heads towards Earth **passes through Lagrange Point L1.** Since Aditya L-1 is placed at Lagrange Point L1 of the Sun-Earth system it has the **major advantage** of continuously tracking these Earth Directed Solar Storms.

Solving the mystery of 'Coronal Heating Problem'- The '**coronal heating problem**' refers to the fact that **the photosphere** (a deeper layer of the Sun) is **at a much lower temperature** than **the corona** (outer layer of the Sun). Since it is believed that the heating process happens from within, the lower temperature of Photosphere compared to corona remains a mystery. Observations by Aditya-L1 of the **magnetic fields bubbling out of the photosphere into the corona** will help solve the mystery of 'coronal heating problem'.

First UV imaging of Sun- UV rays of the **wavelengths from 200-400 nanometers** are prevented from entering the earth by the ozone layer. Since these wavelengths are stopped, we are not able to ascertain the intensity of these UV rays. Ozone depletion can lead to this radiation filtering through to lower levels where it can have harmful effects. Aditya L-1 mission will record the intensity of these waves which will help in **preventing mankind from harmful effect of these UV rays** in future.

Safe upkeeping of satellites in space- Variations in solar weather can **change the orbits of satellites** or **shorten their lives.** They can also **damage onboard electronics** of satellites and cause power blackouts. Aditya L-1 can provide information about the variations in solar weather which will be helpful in the safe upkeeping of **satellites and International Space Station.**

What are the Challenges associated with Aditya L-1 Mission?

Huge Distance between Sun and Earth- The L1 point where Aditya L-1 will be placed is about **1.5 million km from Earth.** Aditya L-1 has to travel approximately **5 times** the distance travelled by Chandrayaan- 3. Safe placement of Aditya L-1 at this point is a challenging task as we need **precise orbital maneuvers** to move Aditya L-1 from Low Earth Orbit (**LEO**) to **L1.**

Smooth operation of Liquid Apogee Motor (LAM) engine- **LAM engines** are used for orbital adjustment maneuvers of satellites/spacecraft in orbit. The big challenge before the ISRO is **restarting LAM** at the precise moment for '**braking**' the spacecraft as it closes in on its destination and nudging it into the desired halo orbit at L1. **During the Mangalyaan mission,** the critical maneuver i.e., '**waking**' the LAM engine after an '**extended hibernation**' was the mission's most challenging moment.

Exposition to heat of the Sun- Aditya L-1 mission will be **exposed to high coronal heat** which can **interfere with the function of the instruments** onboard. Withstanding solar flares is a challenge that Aditya L-1 faces. SOHO, which was the first mission by NASA to study the sun from L-1 point, suffered damage and could not fulfill its entire mission objectives.

Presence of Moving components– Due to the risks involved due to solar flares the payloads in earlier ISRO missions have **largely remained stationary** in space. However, **Aditya L-1 has moving components** like polished mirrors on the telescope and multiple operations of the front window of the telescope. Ensuring proper functioning of these moving payloads/components is a challenging task.

Shorter Duration- The duration of Aditya L-1 which is expected to **last for 5 years** has a very short time span for observation of **solar cycles** which take more than 10 years to complete. SOHO solar probe launched by NASA in 1995 at L-1 point is continuing to make observations till date. SOHO has studied the sun over two 11-year solar cycles.

What are the other missions launched for Solar study?

Mission	Launched by	Achievement
Genesis	NASA (2001-2004)	First spacecraft to capture a sample of the solar wind.
SOHO	NASA and ESA (1995-Present)	Studied the sun over two 11-year solar cycles, sent back information about the sun's structure and helped scientists better predict solar outbursts.
TRACE	NASA (1998-2010)	TRACE was the first mission which studied the sun during an entire solar cycle. It helped scientists get a better idea of the nature of the hot outer atmosphere called the corona.
Parker Solar Probe	NASA (2018-Present)	Closest to reach the sun. Especially designed for the study of the sun's outer corona. It will trace the flow of energy, understand the heating of the solar corona, and explore what accelerates the solar wind.

Conclusion

Success of Aditya L-1 will add to ISRO's growing stature in the world space sector. This will attract more private investment in the space sector and would help in the growth of **'New space entrepreneurship'**.