

Forum IAS

7 PM COMPILATION

16th to 31st 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
- ❖ Best-in class coverage, critically acclaimed by aspirants
- ❖ Out of the box thinking for value edition
- ❖ Best cost-benefit ratio according to successful aspirants

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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.

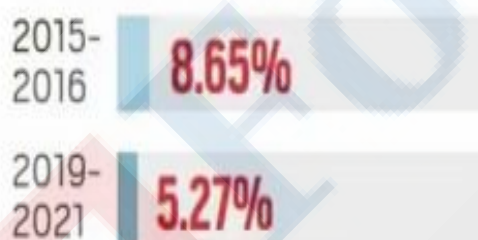
Transitioning to the Multidimensional Poverty Index (MPI) approach, there was a noted decline in poverty rates. As per the report published by NITI Aayog in July 2023, between NFHS-4 (2015-16) and NFHS-5 (2019-21), the multidimensional poverty rate reduced from around 25% to just under 15%. This implies 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



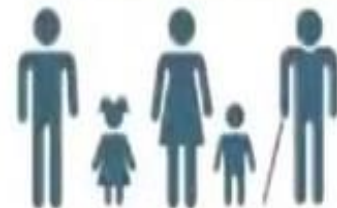
Reduction in the incidence of poverty in urban areas



Source: National Multidimensional Poverty Index: A Progress Review 2023

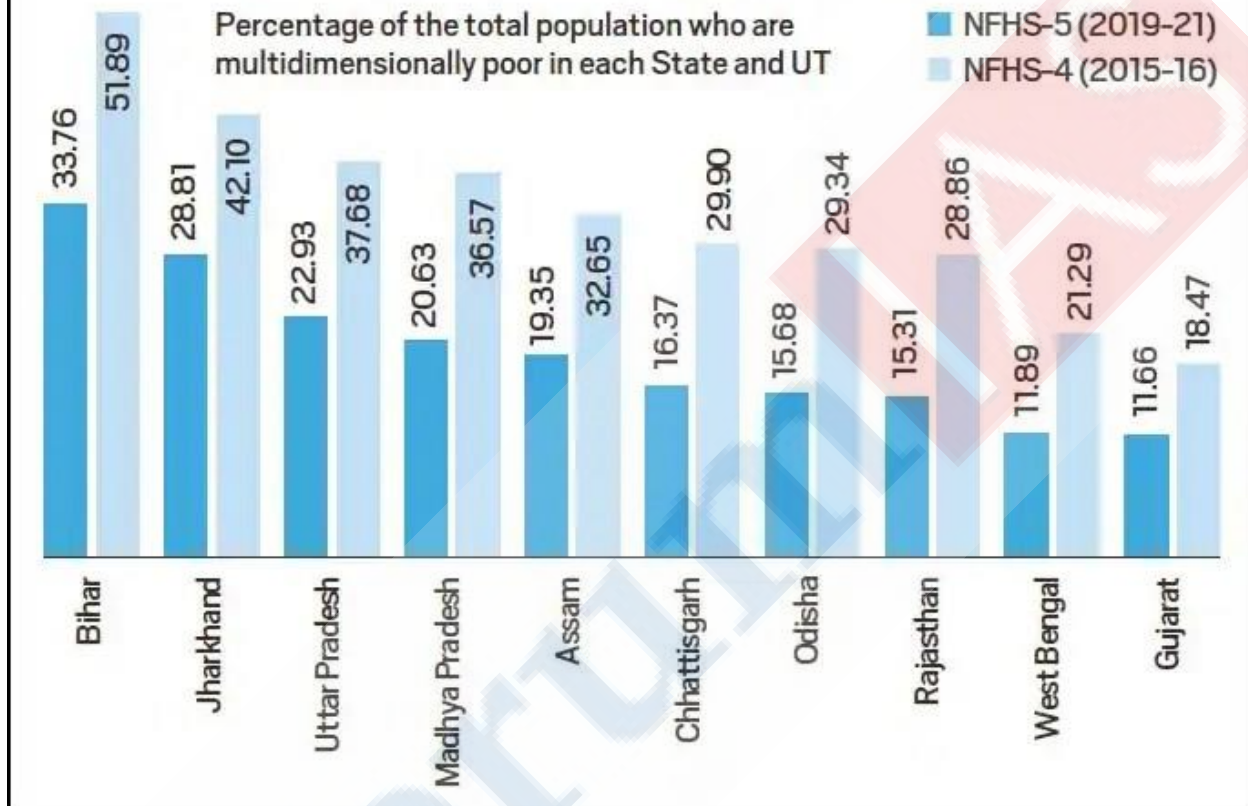
UP, BIHAR, MP, ODISHA and RAJASTHAN recorded steepest decline in number of MPI poor

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's): 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's). 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.

[Kurukshestra 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

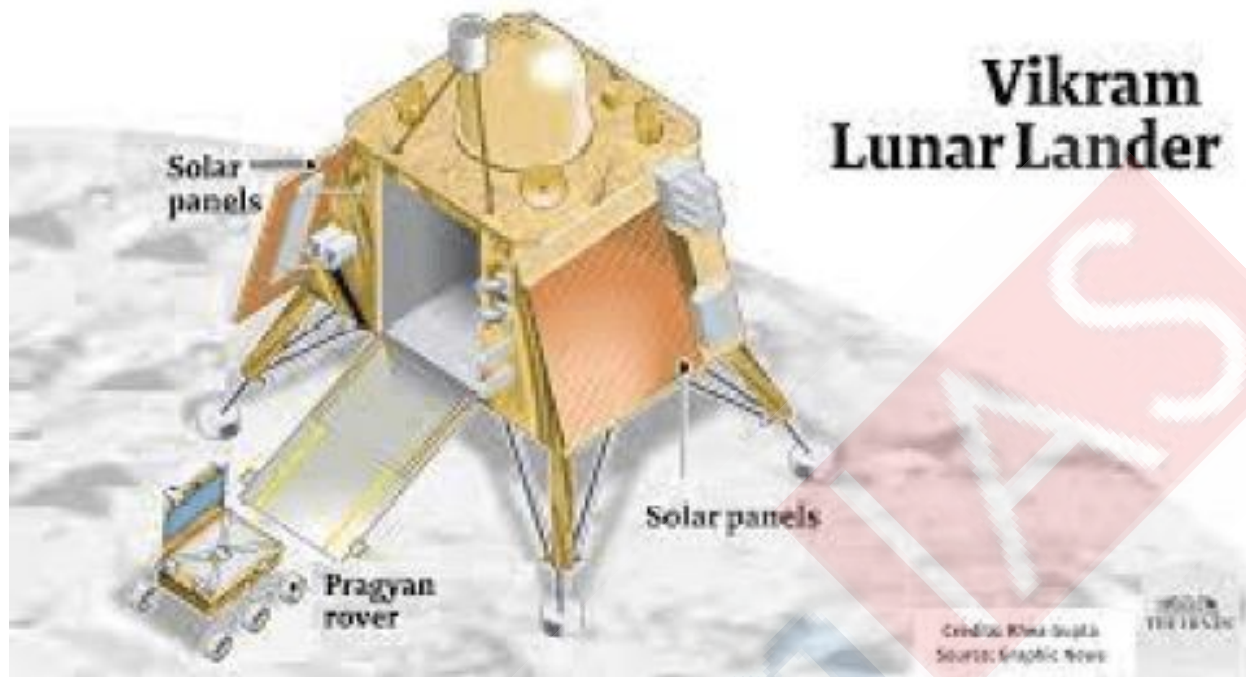
As **Chandrayaan-3** soft landed on the moon at **6.04 pm** on **23rd August** India became the **first country** to land a spacecraft in uncharted territory near the **lunar south pole**. India is only the **fourth country** in history to complete a soft landing on the Moon after the **United States,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

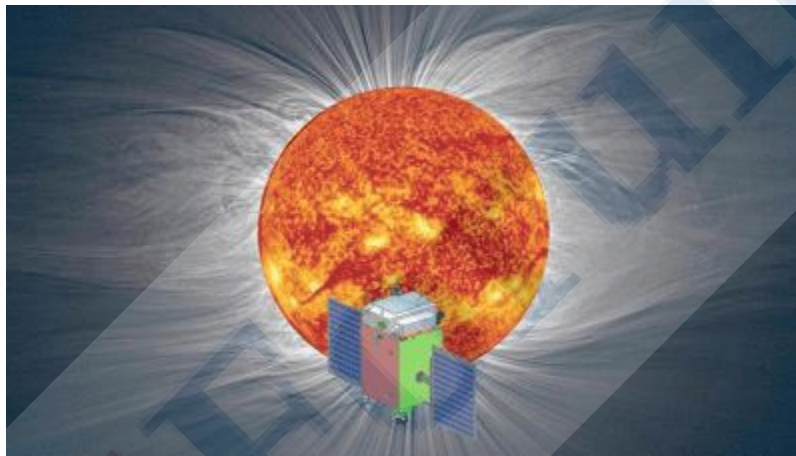


Photo:ISRO,CESSI,IISER Kolkata

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.

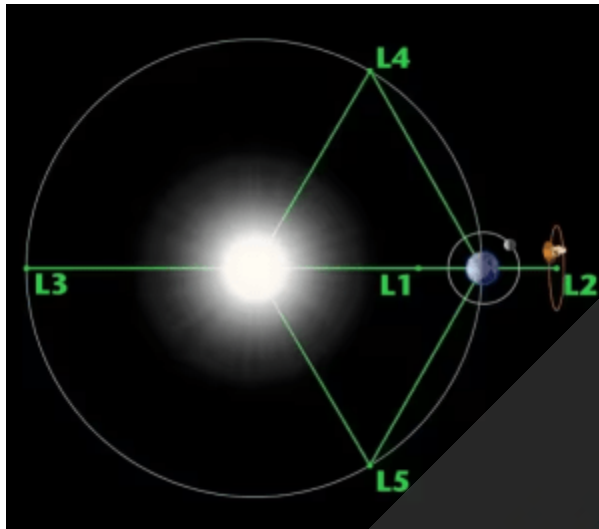
Lagrange Points

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'**.