# Monthly Editorial Consolidation

## 01st December to 30th December 2023

# Content

# Strengthening the Industry-Academia Collaborations

*This editorial is based on "[How universities and industry can collaborate](#)" which was published in The Hindu on 30/11/2023. It talks about the benefits and hurdles of industry-academia collaboration and suggests a holistic approach for proficiently addressing these aspects.*

**Tag**: GS Paper - 2, Government Policies & Interventions, Issues Relating to Development, Human Resource Skill Development, GS Paper - 3, Employment, Inclusive Growth, Industrial Policy, Industrial Growth, Industrial Policy, Industrial Growth.

"The correlation and collaboration between society and education are so complex that simplified explanations cannot possibly give an adequate account of them. This remark is valid for the tasks which education assigns to society and society to education reciprocally."

-**The UNESCO Report,1997 on ' Learning to Be'**

While collaborations between industry and academia are recognized for mutual benefits, many Indian **higher education institutions (HEIs)** neglect industry partnerships and the potential of **intellectual property (IP)** and technology transfers, missing opportunities for gains from patents, licensing, and start-ups despite actively conducting basic research.

Effectively overcoming challenges in industry-academia collaborations requires a thorough and multifaceted approach.

## Why is Industry-Academia Collaboration Important?

➢ **Practical Expertise and Academic Rigor:**
- ○ **Industry-Academia** collaboration provides organizations with a blend of practical expertise and academic rigor.
- ○ Industry professionals contribute first-hand knowledge of contract administration challenges, while universities offer research-based actionable insights and cutting-edge theories.

➢ **Research Commercialization:**
- ○ Collaboration provides opportunities for universities to commercialize their research through patents, licensing agreements, and the establishment of start-up companies.

➢ **Economic Growth:**
- ○ Collaborations contribute to economic growth by fostering innovation, job creation, and the development of advanced technologies.

- ○ Collaborative efforts often lead to innovative solutions, best practice sharing, and exploration of new avenues for industry-university collaboration.

➢ **Culture of Excellence:**
- ○ Beyond knowledge exchange, industry-university collaboration fosters talent development. This interaction establishes a talent pipeline, fostering a culture of excellence and preparing the next generation of professionals for industry challenges.

➢ **Global Competitiveness:**
- ○ Countries with strong industry-academia collaborations are often more competitive globally due to a robust innovation ecosystem.
  - ● **India** retains **40th rank** out of **132 economies** in the **Global Innovation Index 2023** rankings published by the **World Intellectual Property Organization (WIPO).**



Global Ranking in University/Industry Research Collaboration 2014-20
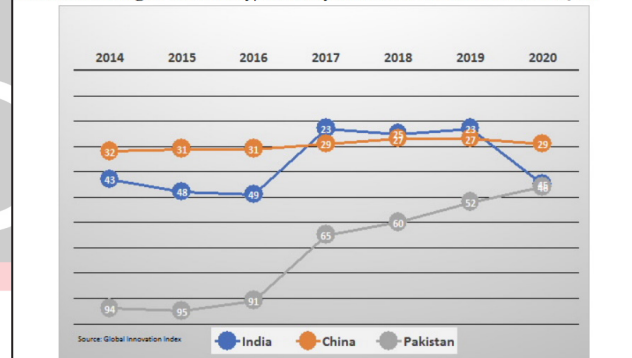
## What are the Impediments to Industry-Academia Collaboration?

➢ **Cross-Purpose Conflict:**
- ○ Academics typically prioritize fundamental research for establishing new concepts, while industries focus on applied research for process improvement and short-term profits, creating a significant cross-purpose conflict.

➢ **Cultural Differences**:
- ○ **HEIs** researchers, while examining company-provided data, may identify a need for increased academic rigor and theoretical depth. In contrast, the company, prioritizing practical outcomes, often lacks the time or expertise for extensive theoretical discussions, focusing instead on real-world solutions, process improvements, or product innovation.

➢ **Conflict of Intellectual Properties:**
- ○ The most significant concern is the conflict between a university's emphasis on protecting the right to publish and the industry's need to safeguard patents and proprietary information.

➢ **Skill Gap:**
- ○ India's education system faced criticism for its perceived lack of alignment with industry requirements, resulting in a disparity between the skills graduates possessed and those demanded by the job market.

➢ **Unstructured Collaboration Frameworks:**
- ○ The lack of clearly defined and structured collaboration frameworks results in confusion, lack of clarity, and challenges in establishing mutually beneficial partnerships.

➢ **Resource Disparities:**
- ○ Unlike developed countries, where industries often make substantial investments in **research and development (R&D)** at universities, Indian industries typically allocate a smaller portion of their budgets to R&D partnerships with academia.
  - • **In India, the government is responsible for nearly 60% of R&D expenditures.**

**SECTORAL COMPOSITION OF SPENDING ON R&D**

In most countries R&D expenditure is undertaken by business enterprises and the higher education sector. In India, the government spends the most on R&D

Legend: ● Government ● Business ● Higher Eduction ● Private Non-profit

| Country | Government | Business | Higher Eduction | Private Non-profit |
|---|---|---|---|---|
| US | 10.3 | 72.6 | 12.9 | 4.2 |
| UK | 6.1 | 69.1 | 22.5 | 2.2 |
| South Korea | 10 | 80.3 | 8.2 | 1.4 |
| Russia | 34.4 | 55.6 | 9.7 | 0.3 |
| Japan | 7.7 | 79.5 | 11.5 | 0.9 |
| Israel | 1.5 | 88.3 | 9.3 | 0.9 |
| India | 56.1 | 36.8 | 7.1 | 0 |
| France | 12.5 | 65.4 | 20.5 | 1.6 |
| Canada | 6.9 | 50.9 | 41.7 | 0.5 |

**What are the Major Government Schemes for Industry-Academia Collaboration in India?**

➢ **Scheme for Promotion of Academic and Research Collaboration (SPARC)**

➢ **Impacting Research Innovation & Technology (IMPRINT)**

➢ **Uchhatar Avishkar Yojana (UAY)**

➢ **Research Park.**

➢ **NCCT (National Council for Cooperative Training):** Industry-academia linkages for the cooperative societies are ensured through the continuous engagement of the sector experts and practitioners in the various training, awareness, and other academic programs run by NCCT, an autonomous society under the Ministry of Cooperation.

➢ **India Innovation Growth Programme (IIGP):** It is aimed at enhancing the Indian innovation ecosystem by enabling innovators and entrepreneurs through the stages of ideation, innovation, and acceleration, to develop technology-based solutions for tomorrow. This programme aims to build an innovation pipeline in India through a high-impact programme focused on the social and industrial innovation ecosystem.

➢ **UGC Draft Guidelines:** The recent UGC draft guidelines on **'Sustainable and Vibrant University-Industry Linkage System for Indian Universities'** have suggested the creation of an **Industry Relation Cell (IRC)** at the universities and a **University Relation Cell (URC)** at companies for collaborations.

**India's R&D spend 7th highest globally**

*Top countries with highest total R&D expenditure - 2022*

$ billion

| | |
|---|---|
| US | 679.4 |
| China | 551.1 |
| Japan | 182.2 |
| Germany | 143.1 |
| South Korea | 106.1 |
| France | 68.5 |
| India | 65.2 |
| UK | 54.9 |
| Russia | 52.2 |
| Brazil | 37 |

**But spend as a share of GDP is very low**

*Top 5 countries with highest total R&D as share of GDP - 2022*    in %

| | |
|---|---|
| Israel | 4.8 |
| South Korea | 4.5 |
| Switzerland | 3.37 |
| Germany | 3.31 |
| Sweden | 3.31 |
| India | 0.65 |
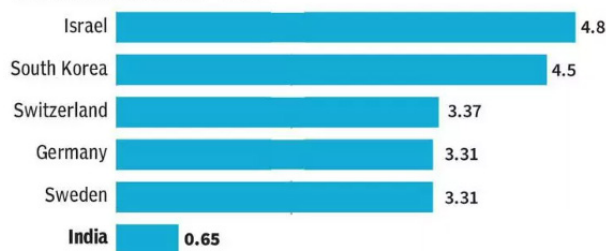
*How can Universities and Industries Collaborate in India?*

➢ **Short-term Collaborations:**
- ○ Colleges or universities with minimal research facilities can focus on short-term collaborations with local manufacturing companies facing technical problems in their production line that need a quick resolution.

➢ **Long-term Research Collaborations:**
- ○ Colleges or universities with good research facilities and faculty expertise can partner with the industry for long-term research collaborations that aim to develop cutting-edge technologies as targeted under the initiatives like **IMPRINT**.

❍ The additional benefit of such long-term collaborations is that students can work as interns on research projects. They will then learn to handle deadlines, navigate failures, and collaborate with colleagues in the industry.

➢ **Developing a Symbiotic Relationship:**

❍ HEIs and Industries should work on developing a symbiotic relationship.

❍ Industries in specific domains should collaborate with research groups across different Universities in the same domain to keep themselves abreast of new research developments.

➢ **Building Trust Through Open Dialogue:**

❍ Engage in open dialogue to address potential conflicts and foster flexibility in approaches, accommodating both academic and industry priorities.

❍ Establish trust through clear communication, mutual agreements on intellectual property, and non-disclosure agreements to protect sensitive information.

➢ **Creating an Enabling Environment:**

❍ There should be clear agreements outlining the scope of IPR rights, responsibilities, and outcomes of collaborations, along with a roadmap for the research.

❍ There should also be critical annual reviews by a team of experts appointed by the funding agency to examine the deliverables promised by the stakeholders.



➢ **Increase Spending on R&D and Innovation:**

❍ There should be adequate government funding for suitable research grants.

❍ This requires boosting gross expenditure on R&D from 0.7% of GDP currently, to at least the average level of **Gross Domestic Expenditure on Research and Development (GERD)** in other top ten economies of over 2%.

➢ **Private Sector Innovation:**

❍ Private companies should actively support and invest in startup ecosystems, fostering innovation by providing funding, mentorship, and resources to emerging entrepreneurs in India.

### *Conclusion:*

India has the opportunity to elevate the industry-academia relationship as a central driver of economic capabilities by transforming conflicts of interest into a convergence of interests. The emerging generation of confident research scholars and faculty, along with dynamic startups, is crucial for positioning India as a global innovation hub, with the young academia playing a key role in fostering the country's growth.

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# Unveiling Taboos: Sexual Education Perspectives in India

*This editorial is based on "Social justice, sexual education, the need of our times" which was published in The Hindu on 30/11/2023. It argues that India needs a comprehensive and inclusive sexual education curriculum that addresses issues such as gender, sexuality, consent, violence, and diversity.*

**Tag**: GS Paper - 2, Issues related to women

In Indian sexual education, caste and gender significantly influence the experiences of young individuals. The media often highlights conflicts arising from caste differences among young people, and legal issues related to relationships crossing caste boundaries. It's crucial to understand the connection between social change and sexuality, emphasizing the need for relevant education. Empowering youth with critical thinking and a commitment to social justice can help address these challenges, fostering a more cohesive and inclusive society.

### *What is the Significance of Sexual Education?*

➢ **Social Justice:** Sexual education is an **integral part of social justice education**. It **goes beyond the biological aspects of reproduction** and includes

teachings about **respecting gender identities and fostering healthy interpersonal relationships.**

- By imparting knowledge about consent, personal boundaries, and ways to prevent sexual abuse, sexual education contributes to creating a more equitable and just society.

➢ **Legal Recognition and Right to Education:** Recent judgments, such as the one from the Calcutta High Court, affirm that children have a **right to access sexual education and sexual and reproductive health services.**

- When education is considered a fundamental right, sexual education naturally becomes an essential component of it, ensuring that young people are equipped with the knowledge necessary for their well-being.

➢ **Positive Impact on Behavior:** Research indicates that it has been shown to delay the onset of the first sexual intercourse, r**educe its frequency, and mitigate risky sexual behavior.**

- By providing comprehensive information, sexual education can empower individuals to make informed choices regarding their sexual health.

➢ **Understanding Gender Constructs:** Sexual education helps students understand the those within the **LGBTQA+** spectrum, it contributes to a **more inclusive and accepting society.** This understanding can lead to improved relationships and interactions among individuals of different genders.

➢ **Transformation of Gender Relationships:** Implementing sexual education in schools has the potential to transform gender relationships both at home and in society. By promoting respect, understanding, and open communication, **it can contribute to breaking down stereotypes and fostering healthier attitudes toward gender roles.**

➢ **Health and Well-being:** India also has the **third-highest number of people living with HIV** in the world. By learning about the dangers of unprotected sex and the ways to avoid sexually transmitted infections (STIs) and HIV/AIDS, individuals can protect themselves and their partners from these diseases.

➢ The **NFHS-5 report** found that **22% of women and 31% of men in the 15-49 age group have comprehensive knowledge of HIV/AIDS.**

### *How Caste and Gender Impact Sexual Education in India?*

➢ **Caste:** Caste is a system of social stratification that divides people into hierarchical groups based on their birth, and ritual purity.

- Caste can affect sexual education **by creating barriers to access, quality, and content of sexual education for different groups,** especially those who are marginalized and oppressed by the dominant castes.

  - For example, some studies have found that **lower caste students face discrimination, harassment, and violence in schools, which can limit their opportunities** to learn about sexuality and reproductive health.

- Caste can also **shape the norms and values that influence sexual behaviour,** attitudes, and choices of different groups.

  - For example, some castes **may have more conservative or patriarchal views on sexuality, gender roles, and marriage,** while others may have more liberal or egalitarian views.

➢ **Gender:** Gender is a social construct that defines the roles, expectations, and behaviors of men and women in a given society.

- Gender can impact sexual education by **creating gender inequalities and stereotypes that affect the needs, experiences, and outcomes** of sexual education for different genders.

  - For example, some studies have found that **girls in India face more barriers than boys to access sexual education,** such as lack of privacy, safety, and mobility, as well as social stigma, shame, and fear.

- Gender can also **influence the content and delivery of sexual education, which may be biased or incomplete,** and fail to address the diversity and complexity of gender identities and expressions, such as those of transgender and non-binary people.

### *What Additional Obstacles Does Sexual Education Encounter in India?*

➢ **Resistance from States:** Some state governments and sections believe it violates "Societal values". They may oppose discussing sex and sexuality openly, as they **consider it immoral and inappropriate.** This can lead to silence, misinformation, and myths about sexual health.

- The states of Gujarat, Maharashtra, Madhya Pradesh and Chhattisgarh have banned or refused to implement sex education in schools to preserve culture.

➢ **Conservative Attitude:** Sexual education in India faces several barriers, such as conservative attitudes,

limited availability, and lack of engagement. Many people view sexual education as promoting promiscuity and immorality, which can make it difficult to implement comprehensive sexual education programs.

➢ **Limited Curriculum:** Many schools in India do not provide adequate or quality sex education, and teachers may lack the necessary training and materials to deliver it effectively. Some schools only focus on the biological aspects of sex, while others ignore the topic altogether or conduct workshops on health and hygiene instead.

➢ **Language Barrier:** Absence of vocabulary in regional languages for discussing concepts like consent. India has a diverse linguistic landscape, and many terms related to sexual health may not have equivalents in local languages. This can make it difficult to communicate effectively and sensitively about sexual health issues.

➢ **Lack of Political Will:** Political parties and leaders often exhibit reluctance to promote sexual education, aiming to appease conservative groups and align with their ideologies. For instance, practices such as female genital mutilation are still prevalent in various parts of the world, and India is no exception to this trend.

### *What Should be the Way Forward?*

➢ **Government Commitment and Implementation:** The government should play a pivotal role in championing sexual education as a crucial component of the school curriculum. Adequate funding, policy support, and sustainable initiatives are essential to ensure the effective implementation of sexual education programs.

   ○ The government must bring all the states on board and encourage them to promote sexual education.

➢ **Integration into School Curriculum:** Sexual education should be seamlessly integrated into the general school curriculum, emphasizing its importance in fostering a perceptive understanding of gender relationships, challenging stereotypes, and promoting respectful and healthy sexual behaviours.

   ○ This integration can be achieved through collaboration with educational experts, psychologists, and sociologists.

➢ **Early and Age-Appropriate Education:** Recognizing the natural curiosity of children, sexual education should commence at an early age.

   ○ Initiatives like the **Adolescent Reproductive and Sexual Health Strategy (ARSH)** and the **National Adolescent Health Programme (RKSK)** should be expanded to reach a wider audience, including pre-adolescents.

➢ **Legal Literacy in Sexual Relationships:** As courts debate the criminalization of consensual sexual relationships among adolescents, the **education sector should provide clarity on the legal aspects of such relationships**.

   ○ This involves educating students about their rights, responsibilities, and the legal framework surrounding sexual interactions.

➢ **Teacher Training:** To effectively implement sexual education, there should be a focus on training teachers. **Workshops, seminars, and training programs** can equip educators with the necessary knowledge, skills, and sensitivity to address diverse issues related to sexual education in the classroom.

➢ **Utilizing Existing Resources:** Various international and national bodies have developed curricula, teaching aids, and materials for sexual education such as the IPPF Framework for Comprehensive Sexuality Education (CSE). **Leveraging these existing resources can streamline** the development of educational materials and ensure a standardized approach to sexual education across schools.

➢ **Community Engagement and Support:** In order to create a supportive environment, community engagement is crucial. Involving parents, guardians, and community leaders in discussions about the importance of sexual education can help dispel myths and foster a more open and accepting atmosphere.

➢ **Regular Updates and Evaluation:** The landscape of sexual education is dynamic, and curricula should be regularly updated to reflect evolving societal norms, scientific understanding, and legal changes.

   ○ Continuous evaluation of the effectiveness of sexual education programs will ensure their relevance and impact.

### *Conclusion:*

A holistic approach that combines government commitment, educational integration, legal literacy, teacher training, resource utilization, community engagement, and continuous evaluation is essential for the way forward in sexual education in India. By addressing these aspects collectively, India can progress towards fostering a generation that is well-informed, respectful, and equipped to navigate healthy sexual relationships.

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# A Blueprint for a More Agile Indian State

*This editorial is based on "Improving the capability of the Indian state" which was published in The Hindu on 02/12/2023. This article discusses the paradox of the Indian state being too big and yet too small, and the challenges of enhancing its capability to deliver public goods and services.*

**Tag**: GS Paper - 2, Issues Relating to Development, Executive

The Indian state is a paradox of too big and yet too small. Try setting up a business or building a house in an urban area, and one will quickly realize how the thicket of the licenses, permits, clearances, and permissions can make life impossible. Even as an ordinary citizen, one can never be sure to be on the right side of the law and the circuitous regulations.

## What is the Position of the Indian State Compared to Other States?

➢ The Weberian state in India is too small. In the **G-20 group**, the country has the **smallest number of civil servants** per capita.

➢ The **public sector share in total employment in India (at 5.77%) is half** the corresponding figures for Indonesia and China, and just about a third of that in the United Kingdom.

➢ With approximately 1,600 per million, the number of central government personnel in India pales in comparison to 7,500 in the United States.

➢ Similarly, the per capita number of doctors, teachers, town planners, police, judges, firefighters, inspectors for food and drugs, and regulators is the **lowest even among countries at a similar stage of development.**

### What is a Weberian State?

➢ A Weberian State is a concept developed by **German sociologist Max Weber**. He says: A modern state is **a system of administration and law which is modified by state** and law and which guides the collective actions of the executive staff; the executive is regulated by statute likewise, and claims authority over members of the association (those who necessarily belong to the association by birth) but within a broader scope over all actively taking place in the territory over which it exercises domination.

## What are the Challenges before the Indian State?

➢ **Outsourcing Services due to Inadequate State Capability:** The Indian state is relatively small on the metrics, such as the **tax-GDP ratio** and **public expenditure-GDP ratio**. Be it public goods provisions, welfare payments, or the justice system, it is a story of scarcity rather than surplus.

○ Due to an inadequate state capability, **governments at the Centre and States end up outsourcing services** that are better provided by the public sector, such as **primary health**.

➢ **Perverse Incentives and Skill Gap:** One of the main problems is the **perverse incentives** created by public institutions and the **skill gap among officials**. These factors have **eroded the ability of the political executive and civil services** to make and implement sound policies.

➢ **Extreme Concentration of Powers:** There is an extreme concentration of policy making and implementation powers in India.

○ Moreover, **restrictions on the frontline personnel to decide on implementation-related issues foster a culture of mistrust** and lack of accountability for poor implementation.

➢ **Technocratic Gap:** The top policymakers exhibit a lack of technocratic skills to govern an increasingly complex economy. In the absence of adequate capability to deal with economic, financial, contract and other technical matters, the Centre and the States hire consultancy firms.

○ According to media reports, the **central government paid over ₹500 crore** in the last five years to outsource crucial tasks to the big five consultancy firms, i.e., PricewaterhouseCoopers, Deloitte, Ernst & Young, KPMG and McKinsey.

➢ **Lack of Strength of Staff with Market Watchdogs:** There is a **lack of strength of professional staff** with market watchdogs - the **Securities and Exchange Board of India (SEBI)**, and the **Reserve Bank of India (RBI)**.

○ **SEBI has just about 800 professionals**, whereas its counterpart in the U.S., the U.S. Securities and Exchange Commission, has more than 4,500 experts to govern the corporates.

○ Similarly, the **professional staff strength of the RBI, less than 7,000**, is tiny when compared to the US Federal Reserve which is assisted by 22,000 odd professionals.

➢ **Weak Oversight and Audit Practices:** Another problem is the narrowly scoped audits by the **Comptroller and Auditor General of India**. It encourages the finance and administrative divisions in government to focus on compliance with rules rather than policy objectives.

- ❍ The tendency of the other oversight agencies, i.e., the **Central Vigilance Commission**, the **Central Bureau of Investigation** and courts to **use hindsight information without appreciating the context has made the bureaucrats averse to exercising discretion** in policy matters.
- ❍ Officials prefer to cancel big contracts even when granting extensions would be better.
  - ● The net outcome is **delayed procurement of goods and services** and unnecessary contractual disputes.
- ➢ **Problematic Appointment of Retired Officers:** The appointment of retired officers to regulatory bodies and tribunals is also a problem. The beneficiaries of such appointments enjoy hefty salaries without compromising the pensionary benefits from past services.
  - ❍ This **makes civil servants susceptible to political manipulation** and influences their in-service decisions.
- ➢ **Reduced Efficacy of the Public Sector:** The political economy of the public sector also undermines its efficacy. The **performance-linked pay and incentive schemes such as bonuses, which work well in the private sector, are not very effective** in the public sector.
  - ❍ In India, the **salary in the public sector is much higher (not proportionate to the nature of the job)**, specially due to the substantial salary hikes by the 6th Pay and the 7th Pay Commissions.
  - ❍ Except at the top, **for most of the skill spectrum, public sector salaries are much higher than private wages**. It **breeds corruption in appointments** as it makes government jobs very lucrative for all, socially driven or not.

## *What Should be the Way Ahead?*

- ➢ **Separate Policymaking and Implementation:** Experiences of countries such as Australia, Malaysia and the United Kingdom show that s**eparating policymaking and implementation responsibilities expedites execution and encourages innovations**, making the programmes better suited to local contexts.
  - ❍ The **National Highways Authority of India**, which is tasked with executing national highway projects, while policy decisions are made at the ministry level. This arrangement has **drastically reduced delays and cost overruns**.
- ➢ **Delegate Financial and Administrative Powers:** The **vicious cycle** wherein poor delegation and a deficient

state capability feed each other **can be broken by delegating financial and administrative powers to the frontline functionaries** or street-level bureaucrats, with clearly defined processes for using them.

- ➢ **Normalize the Lateral Entry Culture:** An institutionalised and regular **lateral entry** at the mid and senior levels can help fill the civil services' size and technocratic gap.
  - ❍ **Qualified officers in non-IAS services** (such as the Indian Revenue, Economic and Statistical Services) **should get a fair shot at high-level positions** if they have the talent and the expertise required.
  - ❍ Also, Civil servants at different levels **can be provided subject-specific training** under **Mission Karmayogi** (National Programme for Civil Services Capacity Building).
- ➢ **Sensitizing the Regulatory Agencies:** Appealing against arbitration and court awards have become the default mode by officials, making the **government the biggest litigator**.
  - ❍ To fix this, the **oversight agencies must be sensitised to appreciate the context of policy decisions**. They should **factor in the costs associated with the actual decisions** as well as their alternatives.
- ➢ **Increase the retirement Age:** The appointment of retired officers to regulatory bodies often makes civil servants susceptible to political manipulation.
  - ❍ The problem can be fixed by **increasing the retirement age to say 65** for all government jobs, and making an absolute upper limit for all appointments.
- ➢ **Reform Public Sector Employment:** The public sector **must attract intrinsically motivated individuals** to contribute to the social good.
  - ❍ Because of job security and better working conditions, the **risk and skill-adjusted pay in the public sector should be lower** than what it is in the private sector.
    - ● One possible solution could be the **moderate pay raises by the future Pay Commission** and a reduction in the upper age limit for government jobs.
- ➢ **Create Jobs in the Private Sector:** High economic growth that throws up many **lucrative jobs in the private sector will make government jobs less appealing** for those who are money minded. It can reduce corruption and increase the chances of socially-driven individuals joining the government.

*Conclusion:*

India's governance paradox requires comprehensive reforms like separating policymaking from execution, empowering frontline workers, and adjusting retirement age. These changes aim to enhance administrative efficiency and attract those committed to social good. By revitalizing its state machinery, India can emerge as a global model of effective governance.

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# Empowering Persons with Disabilities

*This editorial is based on "India, disability inclusion and the power of 'by'" which was published in The Hindu on 04/12/2023. The article highlights the challenges faced by persons with disabilities in India, such as poverty, discrimination, lack of access to education, health, social protection, and employment opportunities. It also cites some positive examples of disability inclusion initiatives.*

Tag: GS Paper - 2, Issues Related to Disability, Government Policies & Interventions

Disability as an identity and entity exists at the intersection of multiple vulnerabilities — social, economic and gender — with each facet requiring careful consideration when conceptualising action for equity.

Globally, **1.3 billion people live with some form of disability**. Of them, 80% live in developing countries; further, 70% of them live in rural areas.

Current systems are designed for persons without disabilities and end up being exclusionary to people with disabilities, resulting in them experiencing higher instances of poverty, lack of access to education and opportunities, informality and other forms of social and economic discrimination.

## What is the Definition of Disability in India?

➢ According to the **Rights of Persons with Disabilities Act, 2016**, a person with a disability is someone who has a long-term impairment that affects their physical, mental, intellectual, or sensory abilities.
  ○ This impairment prevents them from participating fully and effectively in society.
➢ The four main categories of disability are:
  ○ Behavioural or emotional
  ○ Sensory impaired disorders
  ○ Physical
  ○ Developmental

## What is the Status of Disability in India?

According to the **World Bank**, 5–8% of India's population have disabilities. The NSSO estimates that 2.2% of the population is disabled. The **NFHS-5 survey** (2019–21) found that 4.52% of the population has a disability.

## What Challenges Do People with Disabilities Face in India?

➢ **Limited Awareness:** The first hurdle is the lack of awareness about the government schemes and benefits available for people with disabilities.
  ○ This issue is more pronounced in rural areas where information dissemination is challenging.
➢ **Lack of Accessibility and Infrastructure:** Many public places, such as schools, hospitals, transport systems, and government offices, are not designed to accommodate the needs of people with disabilities.
  ○ This limits their mobility, education, health care, and participation in social and civic activities.
  ○ According to **UNICEF**, children with disabilities are often excluded from such spaces and therefore miss out on the critical initiatives that aim to improve their health and well-being.
➢ **Limited Access to Education and Employment:** Persons with disabilities in rural areas often face restricted access to education and employment opportunities.
  ○ The **lack of inclusive educational institutions and vocational training centers** can hinder their ability to acquire necessary skills and participate in the workforce.
➢ **Exclusion from Developmental Schemes:** Some developmental schemes may inadvertently exclude persons with disabilities, leading to their exclusion from critical initiatives.
  ○ One example is vaccination campaigns that **do not take into account the accessibility and communication needs of persons with disabilities**, such as ramps, sign language interpreters, or braille materials.
➢ **Perception and Stigma:** Persons with disabilities are sometimes viewed as objects of charity rather than as autonomous beings capable of making meaningful contributions to society.
  ○ This perception can lead to social stigma, discrimination, and exclusion from decision-making processes, further exacerbating their challenges.
➢ **Agricultural Dependence and Climate Change Risks:** Rural areas in India often have a high dependence

on agriculture, and **persons with disabilities in these areas are particularly vulnerable** to the impacts of **climate change**.

   ❍ Reduced access to clean water and food, hurricanes, heatwaves, and floods pose heightened risks to their livelihoods, health, and overall well-being.

➢ Lack of Legal and Policy Support: India has ratified the **UN Convention on the Rights of Persons with Disabilities (CRPD)** in 2007, and enacted the **Rights of Persons with Disabilities Act (RPWD)** in 2016, which provides a legal framework for the protection and empowerment of people with disabilities.

   ❍ However, there are gaps and challenges in the implementation and enforcement of these laws and policies, and many people with disabilities are still unaware of their entitlements and remedies.

**What are the Initiatives for he Empowerment of Disabled People?**

➢ **The Spark Project:** The **ILO** and the **International Fund for Agricultural Development (IFAD)**, in collaboration with the Women's Development Corporation in Maharashtra, are implementing the **Sparking Disability Inclusive Rural Transformation (SPARK)** project.

   ❍ Through this project, persons with disabilities were put in the lead, being identified from the villages, and trained as **Disability Inclusion Facilitators (DIFs)**.

      ● The DIFs **engage with the community, persons with disabilities, caregivers of persons with disabilities, women from self-help groups and other stakeholders to raise awareness** about disability inclusion and barriers to inclusion.

      ● The DIFs identify women with disabilities and mainstream them in existing self-help groups for social and economic development, where these women have been able to access funds to start an enterprise.

   ❍ The SPARK project has been able to bring an attitudinal shift towards persons with disabilities, right from the societal to administrative levels.

➢ **Unique Disability Identification Portal**

➢ **Accessible India Campaign**

➢ **DeenDayal Disabled Rehabilitation Scheme**

➢ **Assistance to Disabled Persons for Purchase/ fitting of Aids and Appliances**

➢ **National Fellowship for Students with Disabilities**

➢ **Unique ID for persons with disabilities (UDID) card**

## *What Measures Should be Taken to Improve Conditions of Persons with Disabilities?*

➢ **Enhancing Employment Opportunities:** There is a need to create more job opportunities for persons with disabilities, and to provide them with adequate training, skill development, and support.

   ❍ The government and the private sector should implement the provisions of the **RPWD Act 2016, which mandate 4% reservation for persons with disabilities in government jobs,** and incentives for employers who employ persons with disabilities.

   ❍ **CSR initiatives** can also play a role in promoting inclusive and accessible workplaces for persons with disabilities.

➢ **Improving Accessibility and Infrastructure:** There is a need to make public places, such as schools, hospitals, transport systems, and government offices, more accessible and user-friendly for persons with disabilities.

   ❍ This can be done by **adopting universal design principles, providing ramps, lifts, signages, tactile paths, assistive devices,** and other facilities that cater to the diverse needs of persons with disabilities.

   ❍ The government should also ensure the implementation and monitoring of the **Accessible India Campaign**, **which aims to make public buildings and transport systems accessible** for persons with disabilities.

➢ **Raising Awareness and Sensitivity:** There is a need to raise awareness and sensitise people about the rights and abilities of persons with disabilities, and to combat the myths and misconceptions that surround them.

   ❍ This can be done by **conducting campaigns, workshops, seminars, and cultural events** that showcase the talents and achievements of persons with disabilities, and by involving them in decision-making and leadership roles.

   ❍ The media and the education system can also play a role in creating a positive and respectful image of persons with disabilities, and in promoting a culture of inclusion and diversity.

➢ **Strengthening Legal and Policy Support:** There is a need to strengthen the legal and policy framework for the protection and empowerment of persons with disabilities, and to ensure its effective implementation and enforcement.

○ The government should **allocate adequate resources and funds for the welfare schemes and programs for persons with disabilities**, and monitor their outcomes and impact.

○ The government should also **ensure the participation and consultation of persons with disabilities and their organisations in the formulation and review of laws** and policies that affect them.

○ The government should also **raise awareness and the capacity of the judiciary, the police, and the administration to deal with the issues** and grievances of persons with disabilities.

➢ **Capacity-Building at Grassroots Level:** To bridge the gap between government policies and the people they are meant for, there is a need for capacity-building at the grassroots level.

○ **Community leaders** play a crucial role in advocating for the rights and benefits of persons with disabilities, and their training is essential to ensure the effective implementation of these initiatives.

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# Uncovering The Hidden Costs of Agrifood Systems

*This editorial is based on "The need to transform agri-food systems" which was published in The Hindu on 05/12/2023. It talks about the hidden costs of agri-food systems and explores their impact on health, environment, and society.*

> **Tag**: GS Paper - 3, Cropping Patterns, Modes of Irrigation, Direct & Indirect Farm Subsidies Employment, Inclusive Growth, Environmental Pollution & Degradation, Industrial Policy.

The agriculture sector, responsible for growing, processing, and distributing food, sustains jobs and livelihoods for over a billion people.

We are currently at a crucial point as we confront increasing global challenges, including issues of insufficient food availability, limited access to food, and affordability concerns. At the same time, hidden environmental, social, and health costs arise due to the negative impacts of food production and farming.

In its report, **The State of Food and Agriculture 2023**, the **United Nations Food and Agriculture Organization (FAO)** unpacks these '**hidden costs**' of our agrifood systems and explores their impact.

## What is the Hidden Cost of Food and Agriculture?

➢ **Hidden Costs** of agrifood systems include environmental costs from greenhouse gas and nitrogen emissions, water use, land-use change, health hidden costs from losses in productivity due to unhealthy dietary patterns, and social hidden costs from poverty and productivity losses associated with undernourishment.

➢ The **State of Food and Agriculture 2023** is the FAO's first attempt to assess the hidden costs of agrifood systems at a national level across **154** countries.

## What are the Key Highlights of the Report In Global Context?

➢ The **global quantified hidden costs** of agrifood systems were approximately **12.7 trillion** dollars at **purchasing power parity (PPP)** in 2020, equivalent to almost **10 %** of **world GDP** in **PPP** terms.

➢ Globally, **73%** of the quantified hidden costs in 2020 were associated with **dietary patterns** that led to **obesity** and **non-communicable diseases (NCDs)**, causing labor productivity losses.

➢ The quantified **environmental hidden costs from agriculture**, accounting for more than **20%** of quantified hidden costs, are equivalent to almost one-third of agricultural value added.

➢ On the **social side**, it is estimated that the incomes of the moderately poor working in agrifood systems need to increase by **57 %** in low-income countries and **27 %** in lower-middle-income countries, to ensure they are above the moderate poverty line.

➢ It highlights the urgent need to factor these costs into **decision-making** to transform **agrifood systems**.

## What did the Report say in the Context of India?

➢ **India's** total **hidden costs** of agrifood systems were approximately **USD 1.1 trillion**, the **third largest** in the world after **China** and the **United States (US)**.

➢ **India's** share was **8.8%**, out of the global quantified **USD 12.7 trillion** hidden costs associated with agrifood systems, while **China** contributed **20%** and **US** contributed **12.3%**, as per the FAO's report.

➢ **In India**, the **burden of disease** (productivity losses from dietary patterns) had the largest share (60**%**) among hidden costs, followed by the **social cost of poverty among agrifood workers** (14**%**) and then the **environmental cost of nitrogen emissions** (13**%**).

➢ It emphasizes the importance of repurposing **support to transform agri-food systems** to deliver healthy and environmentally sustainable diets to all.

**FIGURE 5** SCOPE OF THE ANALYSIS: AGRIFOOD SYSTEMS STAGES AND PATHWAYS THROUGH WHICH HIDDEN COSTS MANIFEST
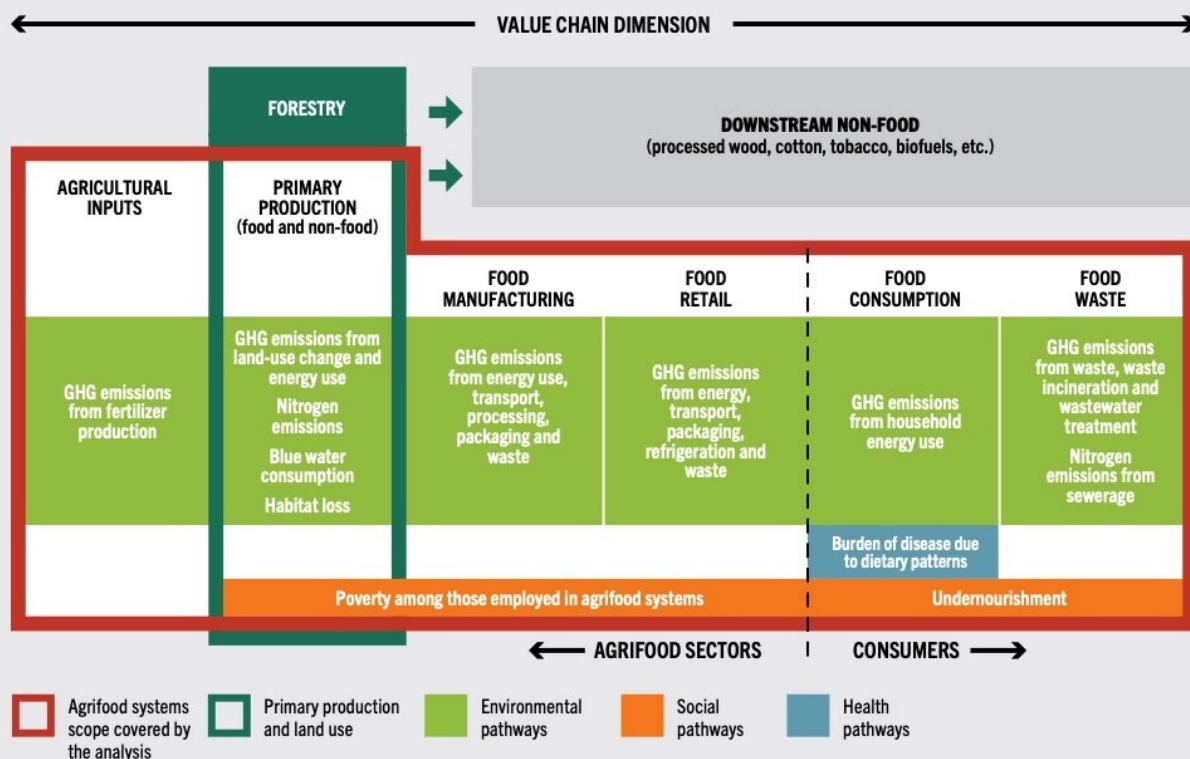
NOTES: GHG = greenhouse gas. For more information on the scope of the analysis, data sources and valuation, see **Annex 1**.
SOURCE: Lord, S. 2023. *Hidden costs of agrifood systems and recent trends from 2016 to 2023 – Background paper for The State of Food and Agriculture 2023.* FAO Agricultural Development Economics Technical Study, No. 31. Rome, FAO.

### How are Intensive Agricultural Practices Impacting the Hidden Costs in India?

➢ **Impact on Society:**

○ **Collapse of Indigenous System:** The introduction of seeds bought from multinational corporations and the use of fertilizers have eroded seed sovereignty, disrupted Indigenous knowledge systems, and led to a transition from a variety of crops like pulses and millets to single-crop plantations.

➢ On the other hand, the traditional farming approach in India boasts a broader range of crops, offering stability and aligning more with nature. In the Garhwal Himalayan region of India, Barahnaja is a crop diversification system for cultivating 12 crops in a year.

○ **Increased Debtness:** This privatization and deregulation of agricultural inputs also increased indebtedness among agrarian households. In 2013, the debt-to-asset ratio of a farmer's household in India was 630% higher than in 1992.

○ **Low Agrarian Income:** Agriculture in India has increasingly become unviable, the average monthly household income of a farming household sits at ₹10,816 only.

➢ **Impact on Ecology:**

○ **Decline in Soil Fertility:** Practices like monoculture and intensive farming without proper crop rotation can deplete specific nutrients from the soil.

○ **Excessive Extraction of Groundwater:** Agriculture in India heavily relies on irrigation to ensure consistent and sufficient water supply for crops. This trend resulted in excessive extraction of **groundwater** which has adverse ecological consequences.

➢ **Impact on Health:** The expansion of rice and sugarcane cultivation affects biodiversity, increases the pressure on groundwater resources, and contributes to air and water pollution.

### What is the Way Forward to Minimize the Hidden Costs of Agrifood Systems in India?

➢ **Crop Diversification:** Promote **crop diversification** and rotation to enhance soil fertility, reduce the risk of pests and diseases, and improve overall resilience in agriculture

| Type of diversification | Nature of diversification | Potential benefit |
|---|---|---|
| Improved structural diversity | Makes crops within the field more structurally diverse | Pest suppression |
| Genetic diversification in monoculture | Cultivation of mixture of varieties of same species in a monoculture | Disease suppression, Increased production stability |
| Diversify field with fodder grasses | Growing fodder grasses alongside of food/pulse/oilseed/ vegetable etc. | Pest suppression, opportunity to livestock farming |
| Crop rotations | Temporal diversity through crop rotations (Sequential cropping) | Disease suppression, Increased production stability |
| Polyculture | Spatial and temporal diversity of crops (Growing two or more crop species within the field) | Insect, pest disease suppression, climate change buffering and increased production |
| Agroforestry | Growing crops and trees together (Spatial and temporal diversity) | Pest suppression and climate change buffering |
| Mixed landscapes | Development of larger-scale diversified landscapes through mixture of crops and cropping system with multiple ecosystems | Pest suppression and climate change buffering |
| Micro-watershed based diversification | Integration of crop with other farming components for year round income and employment generation, besides sustaining soil and environmental health | Insect, pest and disease suppression, climate change buffering and increased production, employment and income |

➢ **Cultivating Climate-Resilient Crop Varieties:** Combine traditional agricultural knowledge with modern scientific methods to identify and utilize crop varieties that have historically demonstrated resilience to local climate conditions.

  ● For instance, drought-tolerant maize varieties have been developed and disseminated in sub-Saharan Africa, benefiting millions of smallholder farmers.

➢ **Precision Irrigation:** It aims to maximize water use efficiency, ensuring that each drop of water contributes effectively to plant growth.

  ● Drip and Sprinkler irrigation is used to maximize water use efficiency and reduce environmental negative impacts.

➢ **Variable Rate Fertilization:** It is an agricultural practice that involves adjusting the application of fertilizers across a field based on variations in soil nutrient levels, crop requirements, and other relevant factors

  ● Variable rate fertilization can be achieved by using soil testing, remote sensing, and **precision agriculture** technologies to tailor fertilizer application to the specific needs of each crop and field.

➢ **Government Policy Changes:**
- Government policy changes can mitigate hidden agrifood costs through taxation, subsidies, and legislation.
- By sharing risks and responsibilities, both public and private entities can work together to manage and mitigate challenges in the agricultural sector.

➢ **Building Justice into the Agrifood Business:**
- **Intergenerational Justice:** Take responsibility for and address the negative historical impacts of agrifood business.
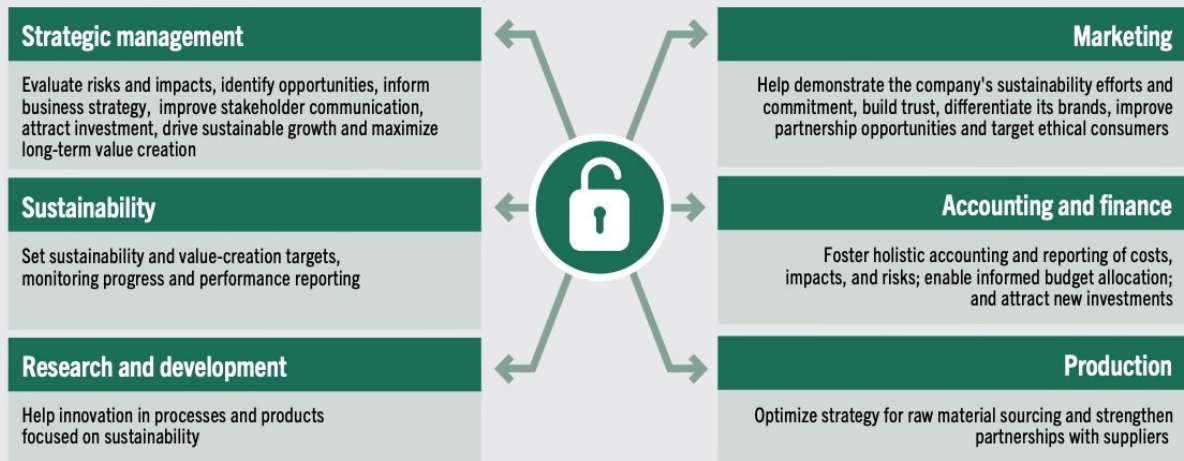- **Intragenerational Justice:** It focuses on ensuring equitable distribution of resources within the same generation with fair compensation strategies for farmers.
- **Interspecies Justice**: Reject human exceptionalism and properly account for, protect, and regenerate the value of biodiversity and ecosystems.

➢ **FAO's True Cost Accounting Approach:**
- The **FAO's true cost accounting approach** – which values the industry's environmental, social, health, and economic costs and benefits – can be used to tackle the hidden costs of agrifood companies.
- It will include regulating the way businesses produce, process, and promote their products.

**FIGURE 14**   **EXAMPLES OF HOW TRUE COST ACCOUNTING CAN INFORM DECISION-MAKING IN DIFFERENT DEPARTMENTS OF AN AGRIFOOD COMPANY**

**Strategic management**

Evaluate risks and impacts, identify opportunities, inform business strategy, improve stakeholder communication, attract investment, drive sustainable growth and maximize long-term value creation

**Sustainability**

Set sustainability and value-creation targets, monitoring progress and performance reporting

**Research and development**

Help innovation in processes and products focused on sustainability

**Marketing**

Help demonstrate the company's sustainability efforts and commitment, build trust, differentiate its brands, improve partnership opportunities and target ethical consumers

**Accounting and finance**

Foster holistic accounting and reporting of costs, impacts, and risks; enable informed budget allocation; and attract new investments

**Production**

Optimize strategy for raw material sourcing and strengthen partnerships with suppliers

SOURCE: Riemer, O., Mairaj Shah, T.M. & Müller, A. 2023. *The role of true cost accounting in guiding agrifood businesses and investments towards sustainability – Background paper for The State of Food and Agriculture 2023.* FAO Agricultural Development Economics Working Paper, No. 23-13. Rome, FAO.

*Conclusion:*

As we stand at the precipice of an environmental crisis, it is evident that our current trajectory is pushing the Earth's system beyond safe and just boundaries. We possess the potential not only to avert further damage but to instigate a just and transformative shift that can recalibrate our relationship with the planet. The first crucial step lies in drawing attention to the pressing need for a profound and equitable transformation of our food system.

# Assessing the Unlawful Activities Prevention Act

*This editorial is based on "The case of delayed bail and trial" which was published in The Hindustan times on 05/12/2023. The article talks about the Unlawful Activities Prevention Act (UAPA) and challenges associated with it.*

**Tag**: GS Paper - 3, Various Security Forces & Agencies & Their Mandate, Terrorism in Hinterland & Border Areas

The **Unlawful Activities Prevention Act (UAPA)** is India's toughest **terror law** with some alleged draconian provisions. A lot of leeway is given to its form and operation because this country has been bruised by acts of terrorism multiple times. Yet, a comparison of the data from the **National Crime Records Bureau's 'Crime in**

India' (for 2022) on the time taken to file charge sheets under different laws makes for a disturbing reading. **Charge sheets in close to 50% of UAPA cases have been filed** at least a year after the **FIR** was registered — **15% of these charge sheets took more than two years**.

## What is Unlawful Activities Prevention Act (UAPA)?

➢ It was **first enacted in 1967 to deal with secessionist movements** and anti-national activities.

➢ It was amended several times, most recently in 2019, to include provisions related to terrorist financing, cyber-terrorism, individual designation, and seizure of property.

➢ It empowers the **National Investigati on Agency (NIA)** to investigate and prosecute cases under UAPA across the country.

➢ It **provides for the death penalty and life imprisonment as the highest punishments** for terrorist acts.

➢ It allows for the **detention of suspects without charge or trial for up to 180 days,** and for the denial of bail to the accused unless the court is satisfied that they are not guilty.

➢ It **defines unlawful activity as any action that supports or incites the cession or secession** of any part of India, or that questions or disrespects its sovereignty and territorial integrity.

➢ It **defines terrorism as any act that causes or intends to cause death or injury to any person, or damage or destruction to any property,** or that threatens the unity, security or economic stability of India or any other country.

## What are the Arguments in favor and Arguments against UAPA?

**Arguments in Favor:**

➢ **National Security:** Advocates argue that the UAPA is **crucial for safeguarding national security.** The law empowers the government to take preventive measures against individuals and organizations that are involved in or support terrorism and other activities that threaten the security of the nation.

○ For example, Stan Swamy, a Jesuit priest, and activist, who was booked under the UAPA for inciting violence during a Dalit meeting in January 2018. The government alleged that he was linked to a banned Maoist group and was part of a conspiracy to overthrow the state.

➢ **Counterterrorism Measures:** UAPA is seen as **a comprehensive legislation that provides law enforcement agencies with the necessary tools to combat terrorism effectively.** It allows for the designation of individuals and organizations as terrorists, making it easier to investigate, prosecute, and prevent terror-related activities.

○ For example, the government designated several individuals and organizations as terrorists under the UAPA, such as Masood Azhar, Hafiz Saeed, Zaki-ur-Rehman Lakhvi, Dawood Ibrahim, Lashkar-e-Taiba, Jaish-e-Mohammad, and others. This enabled the government to freeze their assets, ban their travel, and impose sanctions on them.

➢ **Preventive Detention:** The UAPA allows for **preventive detention of individuals suspected of being involved in unlawful activities.** Proponents argue that this provision is essential for preventing potential threats before they materialize, especially in cases where there may not be enough evidence for a formal trial.

○ For example, Safoora Zargar, a student activist who was arrested and detained under the UAPA for allegedly being part of a conspiracy to incite communal riots in Delhi in 2020. The government alleged that she was associated with a banned extremist group and was involved in organizing anti-**CAA** protests.

➢ **Global Commitments:** Supporters contend that the UAPA is **in line with India's international commitments to combat terrorism.** The legislation aligns with global efforts to address transnational terrorism and provides a legal framework for cooperation with other nations in the fight against terrorism.

○ For example, the government ratified the **United Nations Convention for the Suppression of the Financing of Terrorism** in 2019 and amended the UAPA to incorporate its provisions. The amendment enabled the government to criminalize the financing of terrorism and impose obligations on financial institutions to report suspicious transactions.

➢ **Effective Prosecution:** UAPA is perceived as a r**obust legal tool that facilitates the prosecution of individuals involved in unlawful activities.** The law allows for the use of intercepted communications, electronic evidence, and other modern investigative techniques, making it easier to build a case against those engaged in terrorist activities.

○ For example, the government used the UAPA to prosecute and convict Ajmal Kasab, the lone surviving terrorist of the 26/11 Mumbai terror attacks. The government relied on the CCTV footage, phone records, confessions, and forensic evidence to prove his involvement in the attacks. He was sentenced to death and executed in 2012.

➢ **Deterrence:** The UAPA is seen as a **deterrent against individuals and organizations that might be inclined to engage in activities detrimental to the security of the nation.** The severe penalties and legal consequences prescribed by the law are intended to discourage individuals from participating in or supporting unlawful activities.

　○ For example, in the case of the **2001 Parliament attack**, which killed 14 people and injured 22. The government used the UAPA to impose severe penalties on those who were found guilty of conspiring and executing the attack. Among them, Afzal Guru was hanged in 2013.

**Arguments Against:**

➢ **Violative to Fundamental Rights:** The law **violates the fundamental rights of freedom of expression, assembly, and association** guaranteed by the Constitution. It criminalizes dissent and protest, and can be used to target activists, journalists, students, and minorities who raise their voice against the government.

➢ **Lacks Safeguard Mechanism:** The law lacks adequate safeguards and accountability mechanisms to prevent misuse and abuse of power by the authorities. It **gives the central government the sole discretion to designate individuals as terrorists, without any judicial review or opportunity for appeal.** It also shifts the burden of proof to the accused, making it difficult to obtain bail or fair trial.

　○ Furthermore, the Supreme Court in **NIA v. Zahoor Ahmad Shah Watali (2020)** ruled that it is not permissible for courts to even engage in a detailed analysis of prosecution case while considering bail under UAPA and to weigh whether evidence adduced (cited as evidence) by prosecution is even sufficient or not.

　　● Later in the case of Thwaha Fasal vs Union of India (2021) the court made it easier to get bail for accused charged under sections of UAPA.

➢ **Against the Federal Structure:** The law is against the federal structure of the country, as it **encroaches upon the powers of the state governments to maintain law and order and investigate crimes.** It also undermines the autonomy and independence of the NIA, which is supposed to be a central agency for counter-terrorism.

➢ **Low Conviction Rate:** The law has a low conviction rate, indicating that it is ineffective and arbitrary in achieving its objectives. According to the Union Home Ministry, **only 2.2% of the cases registered under the UAPA between 2016 and 2019 ended in conviction by courts.** This shows that the law is used to harass and intimidate innocent people, rather than to curb terrorism.

### What is the Judiciary's View?

➢ In **Arup Bhuyan vs State Of Assam (2011)** the Supreme Court ruled that **mere membership of a banned organisation will not incriminate a person.** It can be done if a person resorts to violence or incites people to violence or does an act intended to create disorder.

➢ In **The People's Union for Civil Liberties v. Union of India (2004),** the Court had decreed that if human rights are violated in combating terrorism, it will be self-defeating.

➢ In **Union of India v. K A Najeeb (2021)**, the Supreme Court said that notwithstanding restrictions on bail under the UAPA, constitutional courts can still allow bail if they perceive that the accused's fundamental rights have been violated.

➢ In the **Mazdoor Kisan Shakti Sangathan v. Union of India (2018),** the Court said that **uprisings against governmental and parliamentary actions are legitimate.** Though such protests and assemblies are supposed to be peaceful and non-violent.

### What Measures should be taken to Reform the UAPA?

➢ **Amend the Law:** Narrow down the definition of "unlawful activity" and "terrorist act" to **exclude constitutionally protected activities such as peaceful protests, dissenting opinions, and ideological expressions.** The current definitions are vague, broad, and subjective, and can be used to criminalize any act that the government deems undesirable or threatening.

　○ **Dissent is an indispensable feature of the right to free speech** under Article 19(1)(a) as rendered in Maqbool Fida Hussain v. Rajkumar Pandey (2008).

➢ **Shift the Burden of Proof:** Ensure that the **burden of proof lies on the prosecution and not on the accused**. The UAPA law reverses the normal principle of criminal law by requiring the accused to prove their innocence rather than the prosecution to prove their guilt. This makes it extremely difficult for the accused to get bail or a fair trial.

➢ **Establish a Review Mechanism:** Establish an **independent and impartial review mechanism to monitor and challenge the government's decisions to ban or designate certain associations or individuals as unlawful or terrorist.** The current mechanism is inadequate and ineffective, as the government does not have to provide any reasons or evidence for its actions, and the review tribunal is often biased or influenced by the government.

➢ **Use the Law as the Last Resort:** Ensure that the UAPA law is **used only as a last resort and not as a first response** to deal with security threats or social unrest.

❍ The UAPA law **should not be used to suppress legitimate dissent,** criticism, or opposition, or to harass, intimidate, or silence civil society actors, journalists, academics, or human rights defenders.

❍ The government **should respect and protect the fundamental rights and freedoms of all citizens, and use dialogue, negotiation,** and reconciliation as the preferred means to resolve conflicts and grievances.

### *Conclusion:*

The UAPA is a potent tool in India's anti-terrorism efforts, but concerns persist about its impact on individual liberties. Supporters highlight national security and counterterrorism, while critics point to potential rights violations and a low conviction rate. **Striking a balance between security and civil liberties requires thoughtful amendments**, a commitment to due process, and judicious use of the UAPA for a more effective counterterrorism strategy in India.

■■■

# Multidimensional Poverty Index: Flaws and Solutions

*This editorial is based on "Multidimensional Poverty Index reduction under the NDA is flawed" which was published in The Hindu on 07/12/2023. The article points out several methodological and conceptual problems with the MPI and the data sources used to compute it.*

**Tag**: GS Paper - 2, Poverty, Issues Relating to Poverty & Hunger, GS Paper - 3, Growth & Development

"Poverty is a great enemy to human happiness; it certainly destroys liberty, and it makes some virtues impracticable, and others extremely difficult." - Samuel Johnson

In sharp contrast, conventional measures of poverty in terms of income are limited and narrowly focused on scarcity of resources to eke out a bare subsistence. But there is much more to poverty than a bare subsistence.

Nobel Laurate Amartya Sen pioneered a rich, innovative and broader perspective on well-being, focusing on capabilities and functionings popularly knowns as capability approach.

### *What is Amartya Sen's Capability Approach?*

➢ Amartya Sen's capability approach **is a normative framework for evaluating individual well-being** and social arrangements.

❍ It **focuses on the real opportunities or freedoms that people have to achieve the kind of lives they value,** rather than on their happiness, preferences, or resources.

➢ According to Sen, the capability approach has **two main components:** functionings and capabilities.

❍ Functionings are the **valuable states of being and doing that a person can achieve,** such as being healthy, educated, or socially active.

❍ Capabilities are the **set of alternative functionings that a person can choose from,** given their personal and social circumstances.

● For example, a person may have the capability to be either well-nourished or undernourished, depending on their access to food and their dietary choices.

➢ Sen argues that the **capability approach is a better way of assessing human welfare than other approaches,** such as utilitarianism and resourcism.

❍ He claims that these approaches are either too narrow or too insensitive to the diversity and complexity of human lives.

● **Utilitarianism is about making choices that lead to the greatest happiness** or satisfaction of desires.

● While **resourcism is about how resources like income, wealth, or goods** are distributed in society.

❍ For Sen, the ultimate goal of development is to expand people's capabilities, not just their incomes or utilities.

➢ Sen's capability approach has inspired the creation of the **Human Development Index.**

### *What is Human Development Index (HDI)?*

➢ HDI is a **composite index that combines three dimensions** of human development: health, education and standard of living.
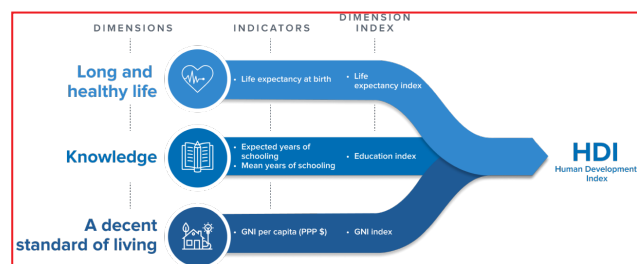


➢ It **ranges from 0 to 1,** with higher values indicating higher human development.

➢ HDI is calculated by the **United Nations Development Programme (UNDP)** and published annually in the Human Development Report.

➢ HDI alone could not capture the multiple dimensions and complexities of poverty, so to complement HDI, concept of **Multidimensional Poverty Index (MPI)** was introduced.

## What is MPI and how is it different from HDI?

➤ **The Multidimensional Poverty Index (MPI):**
- ○ The MPI is a **measure of poverty that captures the multiple deprivations that people face across different dimensions** such as health, education, and living standards.
- ○ The MPI was **developed by the Oxford Poverty and Human Development Initiative (OPHI) and the United Nations Development Programme (UNDP)** and is published in the Human Development Reports.
- ○ The MPI is calculated by multiplying the percentage of people who are multidimensionally poor (the incidence or headcount ratio) by the average number of dimensions in which they are deprived (the intensity).
  - ● The MPI **ranges from 0 to 1,** with higher values indicating higher levels of multidimensional poverty.
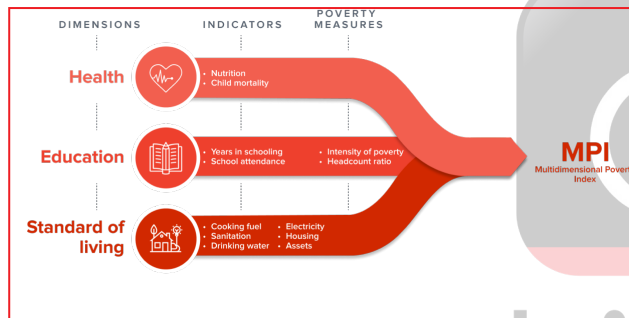


➤ **MPI vs HDI:**

| MPI | HDI |
|---|---|
| Measures the **deprivations** of individuals in three dimensions: **health, education, and standard of living** | Measures the **achievements** of countries in three dimensions: **life expectancy, education, and income per capita** |
| Uses 10 indicators to capture the **intensity and incidence** of poverty | Uses three indicators to capture the **average level** of human development |
| Ranges from 0 to 1, where 0 means **no poverty** and 1 means **extreme poverty** | Ranges from 0 to 1, where 0 means **low human development** and 1 means **very high human development** |
| Published annually by the **United Nations Development Programme (UNDP)** and the **Oxford Poverty and Human Development Initiative (OPHI)** | Published annually by the **United Nations Development Programme (UNDP)** |

**Acknowledge this as well:**
- ➤ The MPI **can identify who is poor and how they are poor**, by showing the number and percentage of people who are multidimensionally poor, and the average number of deprivations they face.
- ➤ The MPI **can also be disaggregated by regions, ethnic groups, or other categories**, to reveal inequalities and patterns of poverty within countries.

## Who calculates the MPI in India?

- ➤ The **MPI in India is calculated by the NITI Aayog** in collaboration with the Oxford Poverty and Human Development Initiative (OPHI) and the United Nations Development Programme (UNDP).
- ➤ The NITI Aayog is the nodal agency for the National MPI, ranking States and UTs based on their performance.
- ➤ The primary data source to arrive at these figures was **National Family Health Survey-5 (NFHS-5)**.

**Why is MPI 2023 data being Questioned?**
- ➤ **Rapid Reduction in MPI Values:** The validity of the reported decrease in India's national MPI 2023 value from 24.85% to 14.96% between 2015-16 and 2019-21 is being questioned for its validity. The reduction of 9.89% suggests a substantial improvement in poverty levels, indicating that about 135.5 million people have exited poverty during this period. However, these estimates are considered misleading and ill-informed.
- ➤ **Ignoring the Impact of COVID-19 Pandemic:** The drastic reduction in MPI values does not account for the economic and social disruptions caused by the **Covid-19 pandemic** in 2020-21.
  - ○ The economic shock and the subsequent struggles of the Indian economy are not adequately considered in the MPI estimates, raising questions about the accuracy of the reported improvements in poverty levels.

## What are the Issues related to Calculation of MPI in India?

- ➤ **Aggregation with Uniform Weighting:** The methodology used in the MPI, **similar to the UNDP Human Development Index, involves aggregation with uniform weighting.** This means that all dimensions are given equal importance in calculating the overall index. This approach can oversimplify the complexities of poverty by not accounting for the varying significance of different deprivations.

- ○ The national MPI uses the same weights and cut-offs for all the indicators across the states and districts, which **may not reflect the diversity and heterogeneity of the country.**
  - For example, the deprivation cut-off for electricity is having access to electricity for at least four hours a day, which may not be adequate for some regions or sectors.
- ➢ **Data Source Issues**: The MPI relies on data from the **National Family Health Surveys (NFHS)** 4 and 5. The critics argue that these surveys are not detailed enough for accurate estimation, and there are concerns about the reliability of NFHS 5 due to its alleged contradiction with official claims regarding open defecation. Despite these issues, the MPI uses the NFHS data without addressing the limitations adequately.
  - ○ NFHS is **conducted every five years** which means that the **MPI may not capture the latest changes in the poverty situation** in the country.
- ➢ **Omission of Relevant Data Sources:** The MPI does not incorporate data from the 75th Round of the **National Sample Survey (NSS)** on household consumption expenditure.
  - ○ Combining NFHS data with NSS data **could provide a more comprehensive and accurate picture of multidimensional poverty.** However, this relevant data source is excluded from the estimation process.
- ➢ **Missing Dimensions**: The national MPI **does not include some important dimensions of poverty, such as social exclusion, discrimination, violence, insecurity, and environmental degradation**, which may affect the quality of life of the poor.
  - ○ Moreover, some of the indicators, **such as nutrition and education, may not capture the multidimensional aspects of these dimensions**, such as the quality of food and learning outcomes.
- ➢ **Intra-household Differences:** The national MPI **may not be able to capture the intra-household differences in poverty**, especially the gender and age disparities, as it uses the household as the unit of analysis.
  - ○ This may mask the variations in the deprivations faced by different members of the household, such as women, children, elderly, and persons with disabilities.

### *What Measures should be taken to Improve MPI?*

- ➢ **Adjustment for Income Fluctuations:** Given the drastic decrease in State per capita income leading to a spike in MPI, **consider implementing a** mechanism to account for income fluctuations. This could involve smoothing techniques or incorporating a lagged income variable to capture the economic effects over time.
- ➢ **Dynamic Urban-Rural Migration Impact:** Acknowledge the impact of dynamic factors on urban locations, especially considering the reverse migration during the Covid-19 pandemic. **Develop a model that reflects the changing patterns of rural-urban migration** and its effects on living conditions and MPI.
- ➢ **Emphasize Expenditure on Education:** Both health care and education expenditure are associated with lower MPI — **the elasticity of the education is higher (in absolute value), implying that a 1% increase in the education reduces MPI more than the same increase in the health care.** As State-level estimates suggest a decline in educational expenditure, a rise in MPI is likely.
- ➢ **Criminal MPs Impact Mitigation:** Given the correlation between the **share of MPs with criminal cases and higher MPI,** explore strategies to mitigate this impact. This could involve policy initiatives to curb corruption, enhance transparency, and address the challenges posed by criminal elements within legislative bodies.
  - ○ As per a study, **if the share of Members of Parliament with criminal cases in total State MPs exceeded 20%, the higher was the MPI.**
- ➢ **Sensitivity Analysis:** Conduct sensitivity analyses to test the robustness of the MPI model. This **involves varying key parameters to understand how changes in inputs impact the results, providing insights into the stability and reliability** of the MPI calculations.
- ➢ **Policy Recommendations:** Use the findings to inform policy recommendations aimed at addressing the identified drivers of poverty. This could involve **advocating for policies that promote income stability, targeted investments in education and healthcare,** and measures to combat corruption and criminality in legislative bodies.

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# India's Challenges in South Asia

*This editorial is based on "India's growing neighbourhood dilemmas" which was published in The Hindu on 08/12/2023. The article discusses the challenges and opportunities that India faces in its neighbourhood, especially in the context of the changing regional and global dynamics.*

Indian foreign policy faces a major challenge in its own neighborhood. While India aims to play a significant role globally, especially in leading the global South and becoming a key player in world politics, its efforts are hindered by difficulties in its immediate surroundings. **The South Asian region, where India is situated, is not enthusiastic about aligning with India's ambitions. In fact, it seems to be holding India back, partly due to the emergence of a powerful neighbor in the region**, presenting a unique and challenging situation for India, unlike anything it has experienced before.

➢ **John Mearsheimer's Theory of Offensive Realism:** John Mearsheimer is a prominent international relations theorist known for his theory of offensive realism.

  ❍ Offensive realism posits that the international system is inherently anarchic and that states should prioritize their own security and survival by seeking to maximize their power relative to other states.

  ❍ Mearsheimer argues that **states are driven by the pursuit of dominance and that this pursuit leads to competition, insecurity,** and ultimately conflict.

## What are the Dilemmas before India in Current Geopolitics?

➢ India faces several dilemmas in its neighborhood, each presenting unique challenges. These dilemmas can be categorized into three main types:

  ❍ **Political Dilemma:**

    ● **Anti-India Regimes:** One of the key dilemmas is the rise of politically anti-India regimes in South Asia. For instance, in the Maldives, the new government has taken an anti-India stance, explicitly asking Indian troops to leave.

    ● **Potential Ideological Shifts:** The upcoming elections in Bangladesh, with the possibility of a Khaleda Zia-led government, add another layer to India's political dilemma.

➢ The fear is that such a government could be ideologically anti-India, complicating diplomatic relations and regional stability.

  ❍ **Structural Dilemma:**

    ● **Chinese Influence:** India faces a structural dilemma due to the increasing influence of China in South Asia. China's growing presence poses a challenge to India's regional dominance and influence. **As China becomes a significant economic and political player in the region, it attracts nations seeking material benefits.**

➢ The structural shift makes it difficult for India to compete effectively in meeting the material needs of its neighbors, leading them to tilt towards China.

  ❍ **Normative Dilemma:**

    ● **Changing Regional Dynamics:** Historically, India has approached the region with a normative and political stance. However, **China's emergence as a non-normative alternative challenges India's traditional calculus.**

➢ China's **approach of being a 'norms-free-zone' disrupts the dynamics of South Asian diplomacy**, as states in the region may find it attractive to align with a power that doesn't impose normative conditions.

    ● **Limited Choices:** The absence of viable alternatives for South Asian states creates a dilemma. With China offering a non-normative alternative, **India faces the challenge of adapting its approach to accommodate the changing dynamics in the region**. This shift challenges India's historical dominance in setting norms and political expectations in its neighborhood.

## How does China stand out from India?

➢ **Belt and Road Initiative (BRI) and Economic Influence:** China's active engagement in the **Belt and Road Initiative (BRI)** and other projects has resulted in a growing entanglement of smaller states in the region.

  ❍ The BRI is a massive infrastructure and economic development project that involves investments in various countries, enhancing connectivity and trade.

  ❍ China's **financial capabilities and commitment** to these initiatives **give it a significant advantage over India**.

  ❍ While India also engages in regional economic projects, China's deeper pockets enable a more substantial impact and influence in the region.

➢ **Outreach to South Asian States:** China has demonstrated a **proactive approach in reaching out to South Asian states**, even when other international players might avoid or abandon them for normative or other reasons.

  ❍ Notable instances include **China's engagement with Taliban-led Afghanistan, military-ruled Myanmar, and crisis-hit Sri Lanka**.

○ India also engages in diplomatic outreach, but the scale and financial backing of China's efforts contribute to a more significant overall impact in the region.

➤ **Border Dispute Resolution Strategy:** China's approach to **settling border disputes with its neighbors, excluding India, is a distinct strategy aimed at winning over the region**. By resolving issues, such as the case of Bhutan, China seeks to establish itself as a reliable and cooperative partner.

○ India, too, has engaged in efforts to resolve border disputes, but the specific focus and strategy employed by China contribute to its unique standing in the region.

### Why does India face these Dilemmas?

➤ **Diminishing Presence of the United States:** The first cause is the changing regional geopolitical architecture, marked by the diminishing presence of the United States in South Asia.

○ Historically, the U.S. was a geopolitical constant in the region. Although **its presence was not always advantageous for India, its departure is considered disadvantageous.**

○ The absence of the United States has created a power vacuum, allowing other players, notably China, to fill the void.

➤ **Rise of China as a Geopolitical Buffer:** The second cause is the aggressive and substantial rise of China. **China's emergence as a major geopolitical player in the region has served as a "geopolitical buffer"** for smaller states.

○ These states have increasingly **utilized the "China card" in their foreign policy**, aligning themselves strategically with China.

○ This shift is seen as a response to the power vacuum left by the United States and reflects a dynamic where **neighboring states are more inclined to assert their autonomy vis-à-vis India but show a different inclination when it comes to China**.

➤ **Neighbours' Strategic Autonomy and China's Appeal:** The third cause relates to the strategic choices made by neighboring states. While **these states may desire strategic autonomy in their relationships, there is limited enthusiasm** for asserting this autonomy in dealings with China.

○ The rise of China as a powerful player in the region **has made smaller states more adept at leveraging their relationships with both India and China** to pursue their interests.

○ This dynamic poses a challenge for India's efforts to engage with its neighbors and maintain influence in the region.

### What could be the Result of this Geopolitical Shift?

The net result, or one that could potentially develop overtime, is somewhat alarming. If India does not take innovative measures, there is a good chance that it will be geopolitically locked in within an unfriendly South Asia.

### What should India do?

➤ **Engage Friendly External Actors:** India should continue to **strengthen its bilateral and multilateral ties with its neighbours**, based on mutual respect, trust, and cooperation.

○ India should **emphasize its historical, cultural, and economic links with the region**, and offer its assistance and partnership in areas such as trade, connectivity, development, security, and disaster management.

○ India should aim to **be a reliable and constructive partner for its neighbours**, and not a domineering or hegemonic power.

➤ **Flexible Diplomacy:** Indian diplomacy should be **adaptable to involve various stakeholders in neighboring countries**. The essence of diplomacy lies in reducing the hostility of anti-India elements, rather than harboring hatred towards them.

○ It is wise to **engage with the current leaders, but limiting engagement solely to those in power is unwise**.

➤ **Expand Diplomatic Personnel:** India should invest more resources and personnel in its diplomatic pursuits, as suggested by the information you provided. India should **increase the number and quality of its diplomats, who can effectively represent and advance India's interests** and values in the region and beyond.

○ India should also **enhance its public diplomacy and cultural outreach, by showcasing its achievements, diversity, and soft power,** and by facilitating people-to-people exchanges and interactions.

### Conclusion:

India's foreign policy in South Asia faces crucial challenges amid China's rise and shifting dynamics. To navigate this, India should prioritize economic connectivity, boost regional security cooperation, and use soft power for positive relationships. Strategic

communication, active participation in regional platforms, and a patient, long-term vision are vital for India to be a stabilizing force in the evolving South Asian landscape.

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# India's Green Future through BioCNG

*This editorial is based on "Biogas can fuel a green economy" which was published in The Hindu Business Line on 10/12/2023. The article discusses about biogas and its potential to fuel a green economy.*

> **Tag**: GS Paper - 3, Environmental Pollution & Degradation, GS Paper - 2, Government Policies & Interventions

Few years back, the Kaira District Co-operative Milk Producers Union Limited popularly known as Amul Dairy became the first in India's food industry to start a fully automated bio-CNG generation and bottling plant to utilize energy from its plant's waste.

After tasting success with its BioCNG pilot project in Banas Dairy, Gujarat, Amul is now looking at four more such new plants in Banaskantha with an investment of ₹230 crore. The implementation of bioCNG projects by Amul will establish a paradigm shift towards a circular economy.

## *What is BioCNG?*

> **BioCNG**, also known as biomethane, is a **renewable and clean-burning transportation fuel produced by upgrading biogas to natural gas quality**. It's essentially purified biogas, made from organic waste materials like:
> ○ **Agricultural waste:** Crop residues, straw, manure
> ○ **Food waste:** Spoiled food, leftover scraps
> ○ **Sewage sludge:** Solid waste from wastewater treatment plants

## *What are the Benefits of BioCNG?*

> **High Calorific Value:** BioCNG has a **high calorific value**, which means it can produce more energy per unit volume than other fuels. This makes it more efficient and economical for various applications, such as vehicle fuel, power generation, heating, and cooking.
> ○ BioCNG **can also replace liquefied petroleum gas (LPG)**, which has a **lower calorific value** and is more expensive.
> **Clean Fuel:** BioCNG is a clean fuel, as it **helps in controlling air pollution**. It **emits less carbon monoxide, nitrogen oxides, and particulate matter** than gasoline or diesel.

○ These pollutants are harmful to human health and the environment, as they cause respiratory problems, **acid rain**, **smog**, and **climate change**.

○ **No Residue or Smoke:** BioCNG **does not produce any residue or smoke**, which makes it **a non-polluting fuel**. It **does not leave behind any ash, tar, or carbon deposits**, which can damage the engine and reduce its performance.
   ● BioCNG is therefore a safer and cleaner fuel than other conventional fuels.

> **Economical:** BioCNG is economical, as it **can be produced locally from waste materials**.
> ○ This can help in **saving transportation and storage costs**, as well as creating local jobs and income opportunities.
> ○ BioCNG can also reduce the energy import bill, as **India imports about 85% of its crude oil requirement**.
> ○ BioCNG can also be **used as a cooking fuel in residential and commercial kitchens**, as it is **cheaper and cleaner** than LPG.

> **Bio-Fertilizers:** BioCNG can also generate bio-fertilizers, which can improve soil quality and crop yield. **Bio-fertilizers** are organic fertilizers that contain beneficial microorganisms, such as bacteria, fungi, and algae, that enhance the nutrient availability and uptake by plants.
> ○ Bio-fertilizers can be produced from the slurry or digestate that is left behind after the production of BioCNG.

## *What is the Government's Vision for BioCNG?*

> **CBG Blending Obligation (CBO):** The government announced a phased mandatory blending of Compressed Bio-Gas (CBG) in Compressed Natural Gas (CNG) and Piped Natural Gas (PNG) segments of the **City Gas Distribution (CGD)** sector in October 2023.
> ○ CBG Blending Obligation (CBO) will promote production and consumption of Compressed Bio-Gas in the country.
>    ● Five per cent blending of biogas with natural gas will **reduce LNG import USD 1.17 billion**.
> ○ The **CBO will be voluntary till FY25** and mandatory blending obligation would start from FY26.
>    ● CBO shall be kept as 1%, 3% and 4% of total CNG/PNG consumption for FY26, 2026- 27 and 2027-28 respectively.
>    ● From 2028-29 onwards CBO will be 5%.

> **Implementation:**
> ○ The **National Biofuels Coordination Committee (NBCC)** is responsible for overseeing the implementation of the mandate.

- ○ The Ministry of Petroleum and Natural Gas (MoPNG) will provide financial assistance and other support to CGD companies
- ○ CGD companies will be responsible for blending CBG in their CNG and PNG networks
- ➢ **Objectives:** The key objectives of the CBO are to **stimulate demand for CBG in CGD sector**, reducing Liquefied Natural Gas (LNG) imports, saving in forex, promoting circular economy and to assist in achieving the **target of net zero emission** among others.

## *What are the Challenges before CBG Blending Obligation?*

- ➢ **Availability of Feedstock:** This challenge involves ensuring a steady and sufficient supply of raw materials for CBG production, which may vary depending on the season, region, and market conditions. The cost of feedstock may also affect the profitability and viability of CBG projects.
  - ○ The government has announced various incentives and subsidies for feedstock procurement under the **SATAT scheme**, but there are issues of implementation and monitoring at the ground level.
- ➢ **Lack of Adequate Infrastructure and Technology:** Developing and deploying the necessary equipment and facilities for CBG production, such as **biogas digesters, compressors, purifiers, etc poses a significant challenge**.
  - ○ Creating and maintaining the infrastructure for CBG storage, transportation and distribution, such as pipelines, cylinders, dispensers, etc is also a challenge.
  - ○ The government has invited bids from entrepreneurs and investors to set up CBG plants under the SATAT scheme, but there are **barriers of entry and exit, such as high capital costs, regulatory hurdles, technical glitches**, etc.
- ➢ **Coordination and Cooperation among Various Stakeholders:** Fostering a conducive and collaborative environment among the various actors involved in the CBG value chain, such as farmers, entrepreneurs, investors, regulators, consumers, etc creates hurdle.
  - ○ It also involves **ensuring transparency and accountability among the stakeholders,** such as compliance with quality standards, pricing mechanisms, contractual obligations, etc.
  - ○ The government has established a **Central Repository Body (CRB) to monitor and implement the blending mandate,** but there may be issues of coordination and communication among the stakeholders, such as conflicts of interest, information asymmetry, etc.

- ➢ **Awareness and Acceptance of CBG as a viable Alternative:** The government has launched various campaigns and initiatives to educate and encourage the public and the industry to adopt CBG, such as the **Go Green campaign**, the CBG logo, etc., but there may be issues of perception and preference among the consumers, such as lack of trust, inertia, resistance to change, etc.

**Measures taken by the Government:**

- ➢ Central financial assistance for setting up of plants for generation of Biogas/Bio-CNG from urban, industrial and agricultural waste
- ➢ Concession on custom duty for import of machinery and components required for initial setting up of projects for generation of Power and Bio-CNG
- ➢ Additional Central Assistance for Municipal Solid Wastes (MSW) based CBG plants under **Swachh Bharat Mission Urban 2.0**
- ➢ Remunerative CBG procurement price and indexing the same with CBG Retail Selling Price
- ➢ Policy guidelines for co-mingling of CBG with Natural Gas in CGD network for improving offtake

## *What should be done for Effective Implementation of CBG Blending Obligation (CBO)?*

- ➢ **Policy and Regulatory Framework:**
  - ○ **Clearly defined targets and timelines:** Ensure clarity on the annual blending percentages for CNG and PNG, with incremental increases to stimulate CBG production and demand.
  - ○ **Streamlined Regulations:** Simplify and expedite regulatory processes for setting up CBG plants and obtaining clearances.
  - ○ **Financial Incentives:** Implement attractive subsidies, tax breaks, and feed-in tariffs to incentivize CBG production and infrastructure development.
- ➢ **Capacity Building and Infrastructure Development:**
  - ○ **Technical Assistance:** Provide technical support and training to potential CBG producers on technology selection, plant operation, and quality control.
  - ○ **Financial Assistance:** Offer low-interest loans and grants to encourage investment in CBG plants and infrastructure.
  - ○ **Grid Integration:** Develop infrastructure for injecting CBG into the existing gas grid, including compression and transportation facilities.

- ○ **Quality Standards:** Implement stringent quality standards for CBG to ensure its safe and efficient use in CNG and PNG networks.

- ➢ **Awareness and Market Development:**
  - ○ **Public Awareness Campaigns:** Educate the public about the benefits of CBG for environmental sustainability and energy security.
  - ○ I**ndustry Engagement:** Collaborate with stakeholders, including CGD companies, vehicle manufacturers, and consumers, to promote CBG adoption.
  - ○ **Technology Demonstration:** Showcase successful CBG projects and promote best practices to build confidence among potential investors.

- ➢ **Additional Considerations:**
  - ○ **Focus on Rural Development:** Promote CBG production in rural areas to create income opportunities and improve energy access.
  - ○ **Promote Feedstock Diversification:** Encourage the use of diverse feedstocks, such as agricultural waste, food waste, and municipal solid waste, to ensure sustainable CBG production.
  - ○ **Address Environmental Concerns:** Implement measures to mitigate the environmental impact of CBG production, such as reducing methane emissions and managing digestate sustainably.

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# India's Growth Strategy Amidst Shifting Dynamics

*This editorial is based on "Calibrating a strategy for India's future growth" which was published in The Hindu on 11/12/2023. The article discusses the challenges and opportunities for India's economic development in the context of the global and domestic environment.*

**Tag**: GS Paper - 3, Growth & Development

India's growth in 2023-24 is currently projected by the **Reserve Bank of India** at 7% while the **International Monetary Fund (IMF)** and the **World Bank** have pegged it at 6.3%. Amidst all these projections which represent a rosy picture of the economy, the declining trend of India's exports could be a cause for concern. According to Federation of Indian Export Organisations (FIEO) report, India's share in global exports in labour-intensive sectors has been declining in the last 5 years. India's future growth strategy needs to be calibrated in view of the changing global conditions.

## What are the Changing Global Conditions?

- ➢ **Deglobalization Trend:** There is a discernible global trend towards **deglobalization** because of ongoing geopolitical conflicts, such as the **Russia-Ukraine war** and the **Israel-Hamas conflict**.

- ➢ **Imposition of Sanctions:** Geopolitical conflicts have led to the imposition of sanctions on certain countries. These sanctions have **resulted in breaks in supply chains and disruptions in international settlements**. Restricted access to critical systems like **SWIFT** for sanctioned countries has exacerbated these challenges.

- ➢ **Declining World real GDP:** The decline in world real GDP growth has resulted in a decrease in the demand for global exports. This trend is a reflection of the overall slowdown in the global economy, which has been characterized by a range of factors such as political instability, trade tensions, and changes in consumer behavior.
  - ○ This decline has translated into reduced demand for global exports, indicating a broader economic slowdown.

- ➢ **Uncertainty and Price Volatality:** Due to supply uncertainties and price volatility, many countries including India want to reduce their dependence on imported petroleum, which has further reduced the global demand.

- ➢ **Declining Export led Growth strategy:** **Export-led growth strategy** is an economic development approach that relies on exporting goods and services to foreign markets. This strategy has faced several **challenges and limitations in recent years, especially after the global financial crisis of 2007-2008** and the **Covid-19** pandemic of 2020-2021.
  - ○ For example, In India's case, **exports experienced a sharp acceleration in the share of GDP during 2003-04 to 2008-09**. This peaked at 25% in 2013-14. In 2022-23, it was 22.8%, having fallen to a trough of 18.7% in 2019-20 and 2020-21.

## What are the Reasons behind Declining Export-led Growth Strategy?

- ➢ **Slowdown in Global Demand:** The crisis and the pandemic have reduced the effective demand for exports from many developed and developing countries, especially in sectors such as tourism, manufacturing, and commodities.
  - ○ This has adversely affected the export revenues and growth prospects of many export-oriented economies.

➢ **Rise of Protectionism:** The crisis and the pandemic have also triggered a wave of protectionist measures and trade tensions among major trading partners, such as the **US-China trade war**, the **Brexit**, and the regionalization of supply chains.

   ❍ These have created uncertainties and barriers for exporters, and undermined the multilateral trading system.

➢ **Limits of Wage Compression:** Many export-led growth strategies have relied on suppressing the wages and incomes of workers to maintain competitiveness and profitability. However, this has resulted in rising inequality, social discontent, and domestic demand constraints.

   ❍ Moreover, it has become increasingly difficult to compete with low-wage countries, or with advanced technologies such as automation and artificial intelligence.

### What is the Impact of Declining Export-led Growth Strategy on India?

➢ The impact of **declining export-led growth strategy on India is negative**, as it affects the country's economic performance, employment generation, and global integration.

➢ India's **exports have slowed down in recent years** due to various factors, such as weak global demand, rising protectionism, and low competitiveness.

   ❍ This has **reduced India's GDP growth**, as exports account for about 19% of the country's GDP.

➢ It has also **limited the creation of jobs, especially in the labour-intensive sectors** such as garments, gems and jewellery, and pharmaceuticals.

### What Measures should India take?

➢ **Boost Domestic Savings:** Address the **decline in household sector savings**, particularly in financial assets, by implementing policies that encourage savings and investments. Also, Analyze the factors contributing to this decline and develop targeted interventions.

   ❍ **Monitor Post-COVID Trends:** Continuously monitor and analyze post-Covid-19 trends in household savings to distinguish between temporary responses and potentially persistent changes. If the decline continues, implement measures to reverse the trend.

   ❍ **Encourage Household Sector Investments:** Promote **financial literacy** and awareness to encourage households to channel their savings

into productive investments. Develop incentives for investments in financial assets to ensure a stable source of funding for the government and corporate sector.

➢ **Optimize Investment Efficiency:** Assess the **Incremental Capital-Output Ratio (ICOR)** regularly and work towards reducing it to enhance the efficiency of investments. If the **ICOR is lower, it could lead to higher achievable growth**, so efforts should be made to improve efficiency in resource utilization.

➢ **Address Employment Challenges:** Recognize the unique demographic advantage and the potential challenge of job creation amidst labor-saving innovations. Allocate resources for training and skilling programs to **prepare the workforce for non-agricultural and technology-intensive sectors**.

➢ **Promote Non-agricultural Growth:** Focus on fostering non-agricultural growth to absorb labor released from agriculture. Implement policies that facilitate the adoption of productivity-enhancing technologies, including **Artificial Intelligence (AI)** and **Generative AI**, to contribute to overall economic growth.

➢ **Climate-friendly Growth:** Align economic growth with environmental sustainability by emphasizing the service sector, which is relatively climate-friendly. Continue and enhance initiatives like the **Green Grids Initiative (GGI)** and **One Sun One World One Grid (OSOWOG)** to promote clean energy and reduce carbon emissions.

➢ **Fiscal Responsibility:** Adhere to fiscal responsibility targets to sustain economic growth. Prioritize policies that bring down the combined **fiscal deficit** and debt to GDP ratios to 6% and 60%, respectively. This will help manage interest payments, reduce government dissavings, and augment the overall savings rate of the economy.

### Conclusion:

India faces a shifting global landscape, marked by deglobalization and economic uncertainties. The need for recalibration is evident in the challenges to the export-led growth model. To thrive, India must focus on domestic resilience, innovation, and sustainable practices. Diversifying trade, investing in education, and fiscal responsibility are crucial. By embracing adaptability and strategic reforms, India can not only navigate current challenges but emerge as a resilient and innovative force in the global economy.

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# Article 370: Decoding the Supreme Court Verdict

*This editorial is based on "Today, a clean canvas for every child in J&K" which was published in The Indian Express on 12/12/2023. The article argues that the verdict is a historic and landmark judgment that upholds the sovereignty and integrity of India and the will of the people of Jammu and Kashmir.*

> **Tag**: GS Paper - 2, Indian Constitution, Federalism, Parliament

On 11ᵗʰ December 2023, the Hon'ble **Supreme Court of India** delivered a historic judgment on the abrogation of **Articles 370** and **35A**. Through its judgment, the **Court has upheld the sovereignty and integrity of India**, something that every Indian cherishes. The Supreme Court observed that the decision taken on 5ᵗʰ August 2019 to abrogate Article 370 which ended the **special status** of the erstwhile state of J&K, was done to enhance constitutional integration and not disintegration. The Court has also recognised the fact that **Article 370 was not permanent in nature**.
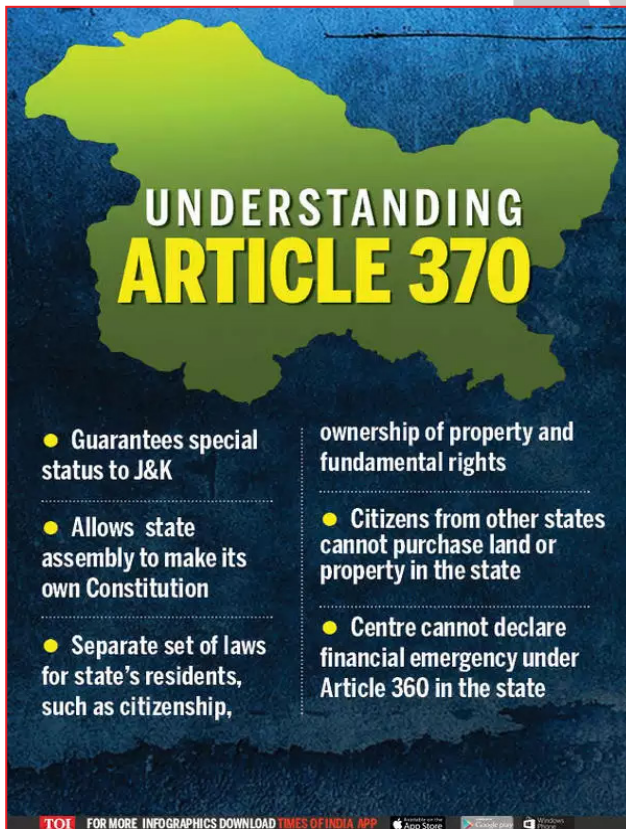


## What was Article 370 About?

➤ Article 370 in the Indian constitution **gave special status to Jammu and Kashmir,** a region disputed by India, Pakistan and China.

○ It was **drafted by N Gopalaswami Ayyangar,** a member of the **Constituent Assembly** of India, and was **added to the constitution as a 'temporary provision'** in 1949.

➤ It allowed the state to have its **own constitution, flag and autonomy** over most matters except defence, foreign affairs and communications.

➤ It was **based on the terms of the Instrument of Accession,** which was signed by the ruler of Jammu and Kashmir, Hari Singh, in 1947 to join India after an invasion by Pakistan.

## How did the Government Repeal Article 370?

➤ **Presidential Order:** In the 2019 Presidential orders, Parliament brought a provision giving new meaning to "constituent assembly of Jammu and Kashmir", to mean "Legislative Assembly of Jammu and Kashmir", and then assumed the powers of the Legislative Assembly through the **President's rule** to revoke Article 370.

➤ **Resolutions in Parliament:** Concurrent resolutions were passed by both houses of the Parliament, the Lok Sabha and the Rajya Sabha, on 5ᵗʰ and 6ᵗʰ August 2019, respectively. These resolutions revoked the remaining provisions of Article 370 and replaced them with new provisions.

➤ **Jammu and Kashmir Reorganisation Act:** The **Jammu and Kashmir Reorganisation Act, 2019**, was passed by Parliament on 5ᵗʰ August 2019. This act **bifurcated the state** of Jammu and Kashmir **into two Union Territories: Jammu and Kashmir and Ladakh.**



## What did the Court Say?

➤ **Art 370 was a Temporary Provision:** The court **held that Article 370 was a temporary provision** and that the **State of J&K had no internal sovereignty**.

○ The court held that Article 370 was meant to be a 'temporary provision' for two primary reasons.

- It **served a transitional purpose** which was to make an interim arrangement to establish a Constituent Assembly of J&K which would draft the State Constitution.
- It was **meant to ease the integration of J&K into the Union of India** in the light of the prevailing war-like situation in the State back in 1947.

➢ **Governor can Assume "all or any" Roles of the State Legislature:** The court upheld the proclamations by referring to the landmark 1994 ruling in '**SR Bommai v Union of India, 1994**' which dealt with the powers and limitations of the Governor under President's rule.

○ The **CJI** said that the **governor (President in J&K's case) can assume "all or any" roles of the state legislature** and such action **must be tested judicially only in extraordinary cases**.

➢ **Concurrence of the State Government isn't Required:** The court ruled that the President in the exercise of powers under **Article 370 (3)** of the Constitution can **unilaterally notify that Article 370 ceases to exist**.

○ It further said that **there was no requirement for the President to secure the concurrence of the State government** in this regard as mandated by the provisos to Article 370(1)(d).

➢ **Upheld the 2019 Law:** The court **upheld the Jammu and Kashmir Reorganisation Act, 2019 to the extent it carved out the Union Territory of Ladakh** out of the State of J&K.

○ The court also observed that the **views of the State legislature regarding the proposed reorganisation are recommendatory in nature** and not binding on the Parliament.

➢ **Parliament is Not a mere Law Making Body During President's Rule:** The Chief Justice held that the power of the **Parliament in a State under the President's rule was not restricted to mere lawmaking**. It also extended to executive action.

## ART 370 FOR INTEGRATION, NOT DISINTEGRATION: SC

### WHAT ART 370 SAYS ABOUT SCRAPPING PROVISIONS

Notwithstanding anything in the foregoing provisions of this article, the **President may, by public notification, declare that this article shall cease to be operative...**

Provided that the **recommendation of the Constituent Assembly of the State... shall be necessary** before the President issues such a notification

➤ Petitioners said that since J&K constituent assembly had ceased to exist, **Art 370 became a permanent feature**

➤ SC says '**President had the power to issue a notification** declaring that Article 370(3) ceases to operate without the recommendation of the constituent assembly'. Also says '**President did not have to secure the concurrence' of the state govt or Union govt acting on behalf of the state govt**

### WHAT SC JUDGMENT SAYS

1. Erstwhile J&K state **did not have internal sovereignty different from other states** of the country after it became part of India

2. '**Exercise of presidential power** to issue constitutional order abrogating Article 370 of Constitution' **is valid**

3. **Constituent assembly of J&K was never intended to be a permanent body**; Article 370 was a temporary provision

4. **Creation of the UT of Ladakh upheld**; not necessary to look into the same for UT of Jammu & Kashmir since it is temporary

5. EC to conduct **elections to J&K legislative assembly by Sept 30, 2024**. 'Restoration of statehood shall take place at the earliest

➤ Bench pronounced **3 separate and concurring judgments**

➤ Justice S K Kaul sought '**impartial truth & reconciliation**' panel to probe human rights violations by state and non-state actors

❝ It is a resounding declaration of hope, progress and unity for our sisters and brothers in Jammu, Kashmir and Ladakh... (It is) a testament to the collective resolve to build a stronger, more united India
—PM MODI

**PM's article in TOI | P 12**

❝ Full statehood must be restored immediately... we believe elections should be held immediately, there is no reason to wait till September 2024 —CONGRESS

❝ It is nothing less than a death sentence not only for J&K, but for the idea of India —MEHBOOBA MUFTI | PDP

❝ (Quoting Faiz) My heart is helpless, but not hopeless, the evening of sorrow is long, but it's just an evening —OMAR ABDULLAH | NC

○ The Court also held that when a Proclamation under Article 356 is in force, there are innumerable decisions which are taken by the Union Government on behalf of the State Government for the purpose of day-to-day administration.

○ Every decision and action taken by the Union Executive on behalf of the State is not subject to challenge.

- Opening up challenge to every decision would lead to chaos and uncertainty.

➢ **Conduct Elections & Restore Statehood:** The court stated that **J&K's statehood should be restored** as soon as possible, it ordered that **elections to the legislative assembly of J&K should be held** by 30th September 2024.

➢ **Establishment of 'Truth and Reconciliation Commission':** Justice Kaul in his concurring opinion mooted the constitution of a **Truth-and-Reconciliation Commission along the lines of the one set up in South Africa** after apartheid to address human rights violations both by state and non-state actors in Jammu and Kashmir since the 1980s.

### Why was the Article 370 Abrogated?

➢ **Integration and Development:** Article 370 **hindered the complete integration of Jammu and Kashmir into the Indian Union**, creating a sense of separatism and impeding its development.

○ It was believed that full integration would allow for better access to resources, infrastructure, and opportunities for the people of J&K.

➢ **National Security:** Article 370 was **exploited by Pakistan to support terrorism and separatism in the region**. The abrogation would strengthen national security by allowing the Indian government to have more control over the region and crack down on terrorist activities.

➢ **Ending Discrimination:** Article 370 **discriminated against women, Dalits, and other marginalized groups** in Jammu and Kashmir. The abrogation would bring them under the umbrella of Indian laws and provide them with equal rights and opportunities.

➢ **Transparency and Accountability:** Article 370 **created a lack of transparency and accountability in the governance** of Jammu and Kashmir. The abrogation would bring the state under the purview of the **Central Vigilance Commission** and the **Right to Information Act**, leading to better governance and accountability.

➢ **Economic Prosperity:** Article 370 **hindered economic development in Jammu and Kashmir**. The abrogation would allow for greater investment, tourism, and job creation in the region.

### What has been the Impact of Article 370 Abrogation?

➢ **Decline in violence**: There has been a **significant decline in violence** in Jammu and Kashmir since the abrogation of Article 370.

○ According to official data, the **number of terrorist incidents has decreased** by over 50% and security forces have killed over 300 militants in the last four years.

○ This can be attributed to a combination of factors, including increased security measures, better intelligence gathering, and a decline in public support for militancy.

**FEWER INJURIES, DEATHS AMONG SECURITY FORCES**

| Incidents | 52 months before Aug 5, 2019 | 52 months after Aug 5, 2019 |
|---|---|---|
| Terrorist-initiated incidents | 765 | 455 |
| Attacks on civilians | 193 | 156 |
| Civilian casualties | 234 | 131 |
| Civilians injured | 1,300 | 422 |
| Encounters | 390 | 338 |
| Security forces injured | 1,098 | 334 |
| Security forces killed | 355 | 125 |

➢ **Improved Economic Development:** The government has implemented several initiatives to boost economic development in Jammu and Kashmir, such as the **Prime Minister's Development Package (PMDP)** and the **Industrial Development Scheme (IDS)**.

○ These initiatives have led to increased investment, job creation, and economic growth in the region.

○ The UT witnessed **tax revenue growth of 31%.** During 2022-23, the **GSDP of J&K grew at 8%** at constant prices, as against 7% at the national level.



Jammu and Kashmir: Revenue Receipts
SOURCE: WWW.CEICDATA.COM | Reserve Bank of India
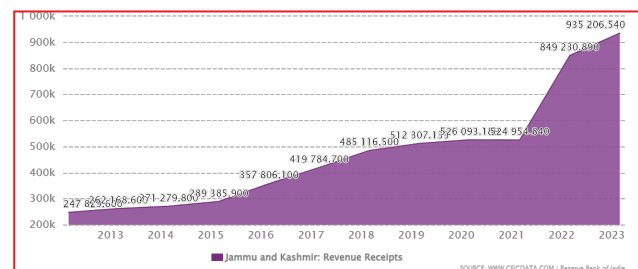
➢ **Enhanced Infrastructure:** The government has also invested heavily in infrastructure development in Jammu and Kashmir. This includes projects such as the construction of new roads, bridges, tunnels, and power lines.

○ These improvements have made it easier for people to travel and do business within the region.

➢ **Increased Tourism:** The number of **tourists visiting Jammu and Kashmir has increased significantly** since

the abrogation of Article 370. This is due to a combination of factors, including improved security, better marketing, and the launch of new tourism initiatives.

❍ According to a report, the region of Jammu and Kashmir has **seen 1.62 crore tourists in 2022, the highest** in India's 75 years of independence.

### Conclusion:

The recent judgment by the Supreme Court has not only upheld the principles of **'Ek Bharat, Shreshtha Bharat',** but it has also served as a powerful reminder of the importance of unity and a collective dedication to good governance. This decision showcases the court's commitment to strengthening the fabric of our nation and reinforcing the values that define us as a society.

■■■

# Consultancy in Government: Navigating Pros and Cons

*This editorial is based on "Work of consultancy firms with government must be regulated" which was published in The Indian Express on 14/12/2023. The article argues that consultancy firms have gained too much influence and power over the government's decision-making. It suggests that there is a need for more transparency and accountability.*

**Tag**: GS Paper - 2, Transparency & Accountability

Government projects today **heavily rely on consulting support** for initiatives like cleaning the river Ganga, **Swachh Bharat** and **Jal Jeevan Mission**, corporatizing the Ordnance Factory Board, and aiding Uttar Pradesh in its goal to grow the state's economy to USD1 trillion. The Centre has engaged a global consulting firm to develop a **Vision 2047** document to identify the country's strategic priorities, reflecting a global trend.

Recent news reports have highlighted that the ministries of the Union government have paid around Rs 5,000 million in fees to global consulting firms in the last five years and that the finance ministry has sought details of all such consulting engagements.

### What are Consultancy Firms?

➢ A consultancy firm is a **business that provides professional advice and solutions** to other organizations that face problems they cannot solve by themselves.

➢ Consultancy firms have experts in different fields, such as management, engineering, finance, healthcare, etc.

❍ They charge a fee for their services and usually work on specific projects or goals.

➢ Some examples of consultancy firms in India are Tata Consultancy Services, McKinsey & Company, Deloitte, etc.

### What are the Benefits of Consultancy Firms in Public Policy Making?

➢ **Specialized Expertise:** Consultants **bring domain-specific knowledge and expertise** that may be lacking within government agencies. This is crucial for effective program formulation and service delivery in sectors such as agriculture, transport, energy, and financial services.

➢ **Flexibility and On-Demand Skills:** The dynamic nature of public policy challenges, especially in the context of digitization, requires specialized **technical skills that consultants can provide on a flexible, on-call basis**. This ensures that the government can access the necessary expertise when needed.

➢ **Diversity of Perspectives:** Consultants offer external perspectives and **diverse skill sets**, contributing to a more comprehensive and innovative approach to problem-solving. This diversity can be particularly valuable in addressing complex issues that may not have clear-cut solutions.

➢ **Efficiency with Project-Specific Engagements:** Consultant engagements are often project-specific and have predetermined end dates. This allows the government to address **specific challenges without permanently increasing its institutional load**, making it a cost-effective and efficient solution.

### What are the Challenges posed by the Consultancy Firms?

➢ **Hollowing out of Government Capabilities:** Relying extensively on consulting firms **may lead to a depletion of in-house government capabilities**. Over time, civil servants may lose essential skills and knowledge, making the government overly dependent on external expertise.

❍ For example, In some rural areas of China, the local governments have outsourced many public services to private or non-governmental organizations, such as education, health care, and environmental protection. This has led to a loss of public accountability, quality control, and social equity.

➢ **Excessive Dependence and Mission Creep:** There's a risk that government officials may become too reliant on consulting teams, even for routine tasks. This dependency can **lead to mission creep, where the scope of consulting engagements expands beyond their original intent,** potentially blurring lines between the roles of consultants and government officials.

  ○ The 2018 CAG report revealed that the consultants hired by the Ministry of Railways were found to be involved in activities beyond their scope of work, raising questions about their accountability and efficiency.

➢ **Lobbying for Repeat Work and Policy Influence:** Consulting firms, having established relationships with government officials, **may exploit these connections to secure repeat work.** There's also a concern that consultants might overstep their boundaries by attempting to influence policy decisions and directions, sometimes for their benefit.

  ○ In 2019, the **Centre for Policy Research (CPR) conducted** a case study on McKinsey & Company's role in shaping India's health policy. The study revealed that McKinsey had close ties with government officials and stakeholders, using its influence to secure contracts and shape policy in its favour.

➢ **Distortion of Public Policy Objectives:** The involvement of consultants in policy formulation can potentially skew public policy objectives. The priorities and recommendations of consultants **might not always align with the long-term interests of the public,** leading to a distortion of the intended policy outcomes.

  ○ In 2017, **a research paper by the Indian Institute of Management (IIM)** examined the influence of consulting firms on India's education policy. It concluded that these firms had a significant impact, advocating for reforms favouring marketization, privatization, and standardization, which undermined public policy objectives of equity, quality, and diversity in education.

➢ **Consultocracy and Diminishing Role of Public Servants:** The term **"consultocracy"** reflects the growing influence of consultants within government structures. This phenomenon may result in a diminished role for traditional public servants, impacting the historical functions and capabilities of government institutions.

➢ **Risk of Corruption:** The intersection of consulting firms with government activities can **create opportunities for corruption.** Cases of corruption scandals related to consultancy services have raised concerns globally, emphasizing the need for transparency and ethical practices.

  ○ Few years back, the **CBI report revealed a corruption scandal involving a consulting firm and a state-owned enterprise in India.** The report accused the firm of colluding with enterprise officials to manipulate tenders, inflate project costs, and divert funds.

### *What should be the Way Forward?*

➢ **Regulatory Safeguards:** The engagements with consultancy groups need to be regulated comprehensively. This includes **ensuring fairness and transparency in the onboarding process and curbing rent-seeking behaviours**.

➢ **Disclosure of Value Added:** To address concerns related to transparency, there should be **mechanisms in place for consultants to disclose the value they add to public policy** initiatives. This transparency is essential for accountability and public trust.

  ○ Independent and impartial oversight bodies, **such as ombudsmen, auditors, and watchdogs can be created** to monitor and evaluate the performance, outcomes, and impacts of government projects and initiatives.

➢ **Knowledge Transfer and Capacity Building:** Clear protocols for **knowledge transfer from consultants to government** officials should be established. Additionally, there should be a **focus on internal capacity building** to ensure that the expertise gained through consultancy engagements contributes to the long-term development of government capabilities.

➢ **Stakeholders Involvement:** Engaging and consulting with citizens and stakeholders, through surveys, forums, and participatory budgeting, to ensure that government policies and programs are responsive, inclusive, and accountable to the public.

### *Conclusion:*

Consulting firms will continue to assist in public policy, as expecting government officials to constantly update their skills for modern governance and digital service delivery may be unrealistic. Carefully calibrated onboarding of expertise from the private sector would add to the quality and effectiveness of public service delivery, provided they are ring-fenced within a transparent regulatory framework.

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# COP 28: Charting the Roadmap for Climate Action

*This editorial is based on "COP28: What were the most important decisions" which was published in The Indian Express on 14/12/2023. It talks about the outcomes and concerns of the 28th Conference of Parties (COP-28) and the urgency of addressing these issues to fulfill commitments and combat climate change effectively.*

**Tag**: GS Paper - 3, Environmental Pollution & Degradation, Environmental Impact Assessment (EIA), GS Paper - 2, Groupings & Agreements Involving India and/or Affecting India's Interests

Recently, the **28th Conference of Parties (COP-28)** took place in Dubai, UAE, with representatives from 197 countries presenting their initiatives to curb global warming and engaging in discussions on future climate actions.

The conference yielded a mix of positive outcomes and disappointments, marking a substantial step forward since the **Paris Agreement**. While some hail it as the conclusion of the fossil fuel era, there are apprehensions about deficiencies in adaptation efforts and troubling gaps in mitigation strategies.

## What are COPs?

➤ COPs are gatherings held within the framework of the **United Nations Framework Convention on Climate Change (UNFCCC)**, a multinational treaty established in **1992**.

➤ These meetings, denoted by the acronym **COP**, serve as the **official sessions** of the **Conference of the Parties**.

➤ During these sessions, participating countries (Parties) evaluate global endeavors aligned with the primary goal of the **Paris Agreement**, aiming to restrict global warming to approximately 1.5 °C above pre-industrial levels.

➤ The COPs are the **main decision-making body of the UNFCCC**.
  ○ They adopt decisions and resolutions on various aspects of climate action, such as mitigation, adaptation, finance, technology, and transparency.

## What are the Key Outcomes of COP 28 (2023)?

➤ **Global Stocktake Text:**
  ○ The **Global Stocktake (GST)** is a **periodic review mechanism** established under the Paris Agreement in 2015.
  ○ The text proposes eight steps to keep the global temperature rise within the ambit of 1.5 degrees Celsius.

  ○ It calls for tripling **renewable energy** capacity globally and doubling the global average annual rate of energy efficiency improvements by 2030.
  ○ It calls for substantially reducing non-CO2 emissions, including, in particular, methane emissions globally by 2030.

➤ **Transitioning Away from Fossil Fuels :**
  ○ COP28 calls for transitioning away from **fossil fuels** in energy systems, in a just, orderly, and equitable manner, accelerating action in this critical decade, to achieve net zero by 2050.

➤ **Global Goal on Adaptation (GGA)**:
  ○ Global adaptation goal focuses on enhancing adaptive capabilities, and minimizing vulnerability for sustainable development.
  ○ At COP28, this text calls for a doubling in adaptation finance and plans for assessments and monitoring of adaptation needs in the coming years.
  ○ Positively, an explicit 2030 date has been integrated into the text for targets on water security, ecosystem restoration, and health.

➤ **Climate Finance:**
  ○ **The United Nations Conference on Trade and Development (UNCTAD)** estimates that wealthy nations owe developing countries USD 500 billion in 2025 under the **New Collective Quantified Goal (NCQG) for climate finance.**
  ○ The goal is to set a new collective quantified goal before 2025. The goal will start from a floor of USD 100 billion per year.
  ○ This includes USD 250 billion for mitigation, USD 100 billion for adaptation, and USD 150 billion for loss and damage.

➤ **Loss and Damage Fund :**
  ○ Member countries reached an agreement to operationalize the **Loss and Damage (L&D)** fund aimed at compensating countries grappling with climate change impacts.
  ○ A specific percentage is earmarked for Least Developed Countries and Small Island Developing States.
  ○ The **World Bank will oversee** the loss and damage fund in the beginning.

➤ **Global Renewables and Energy Efficiency Pledge**:
  ○ The Pledge stipulates that signatories commit to work together to **triple the world's installed renewable energy generation** capacity to at least 11,000 GW by 2030.
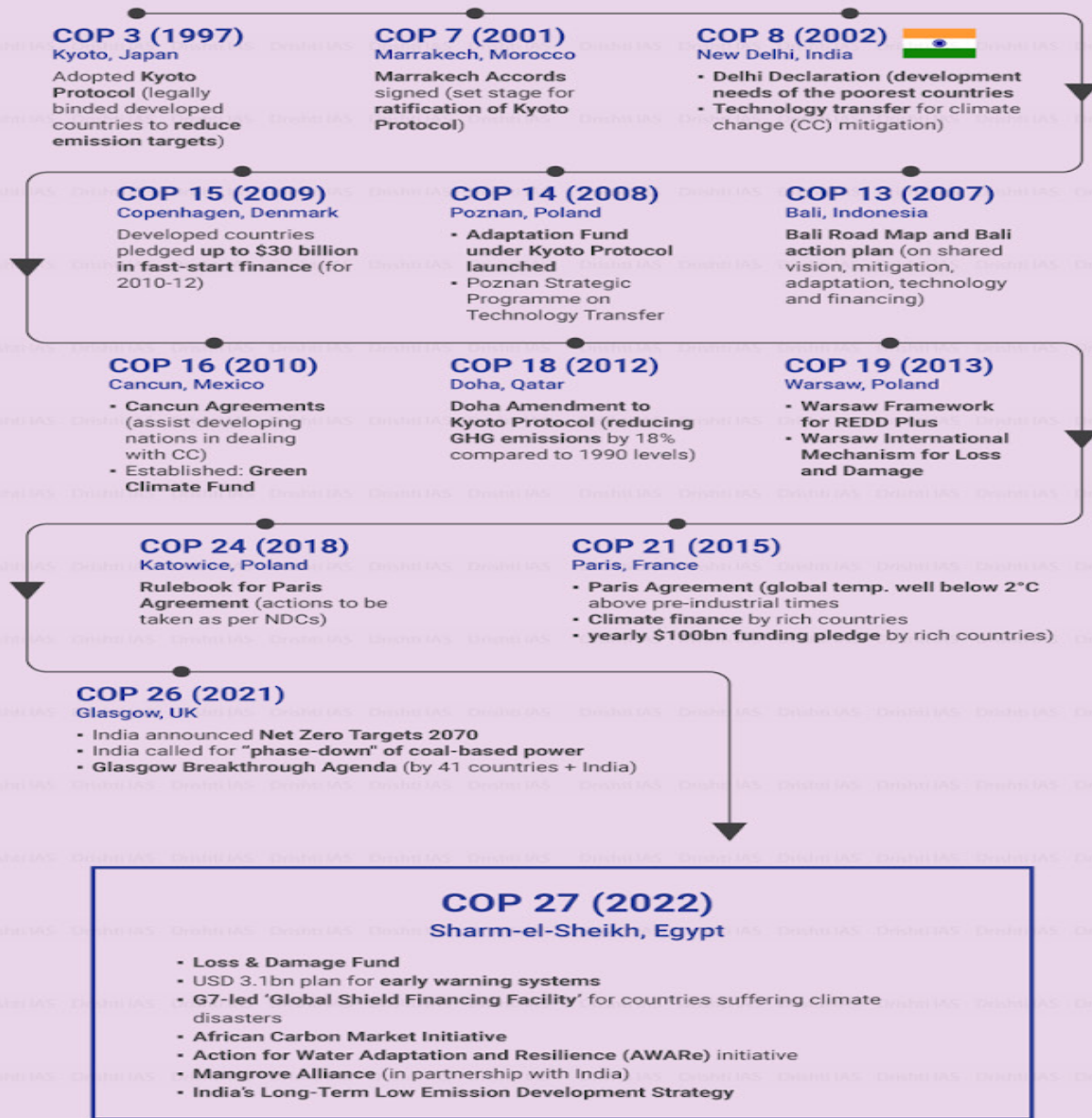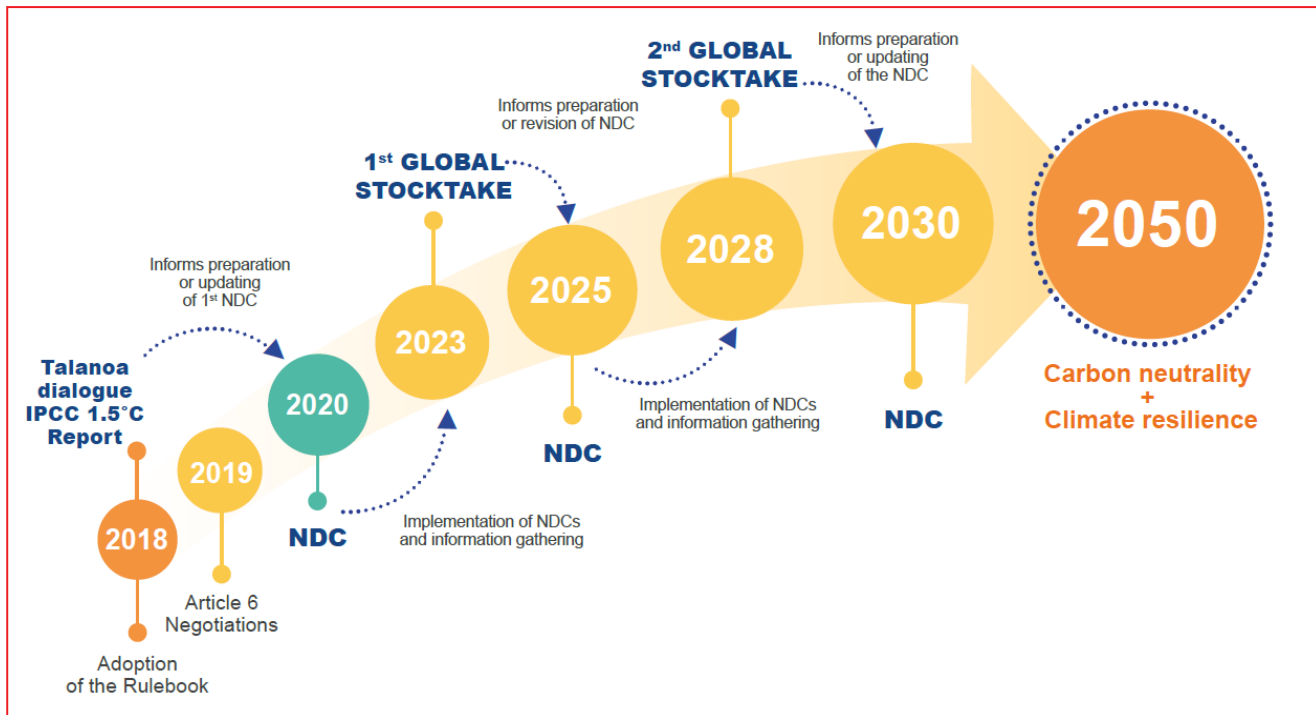
# UNFCCC
## Conference of Parties (COP)

- **Supreme decision-making body** of UNFCCC
- Meets in **Bonn**, the Secretariat (**unless a Party offers to host the session**)
- **Meets every year** (unless the Parties decide otherwise)
- First COP — held in **Berlin**, Germany (1995)

## COPs and Their Major Outcomes

**COP 3 (1997)**
Kyoto, Japan
Adopted **Kyoto Protocol** (legally binded developed countries to **reduce emission targets**)

**COP 7 (2001)**
Marrakech, Morocco
**Marrakech Accords** signed (set stage for **ratification of Kyoto Protocol**)

**COP 8 (2002)**
New Delhi, India
- **Delhi Declaration** (development needs of the poorest countries
- **Technology transfer** for climate change (CC) mitigation)

**COP 15 (2009)**
Copenhagen, Denmark
Developed countries pledged **up to $30 billion in fast-start finance** (for 2010-12)

**COP 14 (2008)**
Poznan, Poland
- **Adaptation Fund** under Kyoto Protocol launched
- Poznan Strategic Programme on Technology Transfer

**COP 13 (2007)**
Bali, Indonesia
Bali Road Map and Bali action plan (on shared vision, mitigation, adaptation, technology and financing)

**COP 16 (2010)**
Cancun, Mexico
- **Cancun Agreements** (assist developing nations in dealing with CC)
- Established: **Green Climate Fund**

**COP 18 (2012)**
Doha, Qatar
**Doha Amendment to Kyoto Protocol** (reducing GHG emissions by 18% compared to 1990 levels)

**COP 19 (2013)**
Warsaw, Poland
- **Warsaw Framework for REDD Plus**
- **Warsaw International Mechanism for Loss and Damage**

**COP 24 (2018)**
Katowice, Poland
**Rulebook for Paris Agreement** (actions to be taken as per NDCs)

**COP 21 (2015)**
Paris, France
- **Paris Agreement** (global temp. well below 2°C above pre-industrial times
- **Climate finance** by rich countries
- **yearly $100bn funding pledge** by rich countries)

**COP 26 (2021)**
Glasgow, UK
- India announced **Net Zero Targets 2070**
- India called for "phase-down" of coal-based power
- **Glasgow Breakthrough Agenda** (by 41 countries + India)

## COP 27 (2022)
### Sharm-el-Sheikh, Egypt

- **Loss & Damage Fund**
- USD 3.1bn plan for **early warning systems**
- G7-led 'Global Shield Financing Facility' for countries suffering climate disasters
- **African Carbon Market Initiative**
- **Action for Water Adaptation and Resilience (AWARe)** initiative
- **Mangrove Alliance** (in partnership with India)
- India's Long-Term Low Emission Development Strategy

○ It also calls for collectively **double the global average annual rate of energy efficiency improvements from around 2% to over 4%** every year until 2030.

➤ **The Global Cooling Pledge for COP 28:**

○ It includes 66 national government signatories committed to working together to reduce **cooling-related emissions** across all sectors by at least 68% globally relative to 2022 levels by 2050.

➤ **Declaration to Triple Nuclear Energy:**

○ The declaration launched at COP28 aims to triple global **nuclear energy** capacity by 2050.

## What are the Major Engagements of India in COP 28?

➤ **Green Credit Initiative:**

○ The **Green Credit Initiative** has been conceptualized as **a mechanism to incentivize voluntary pro-planet actions**, as an effective response to the challenge of climate change.

○ It envisions the issue of Green Credits for **plantations on waste/degraded lands and river catchment areas**, to rejuvenate and revive natural ecosystems.

➤ **Phase II of the Leadership Group for Industry Transition (LeadIT 2.0):**

○ It will focus on **inclusive & just industry transition**, co-development and transfer of low-carbon technology, and financial support to emerging economies for industry transition.

➤ **Global River Cities Alliance (GRCA):**

○ It was launched at COP 28, led by the **National Mission for Clean Ganga (NMCG)** under the **Ministry of Jal Shakti**, Government of India.

○ GRCA highlights India's role in **sustainable river-centric development** and climate resilience.

○ This platform will facilitate knowledge exchange, **river-city twinning**, and dissemination of best practices.

➤ **Quad Climate Working Group (QCWG) on Localised Climate Action** :

○ The event focused on recognizing and amplifying the role of local communities, and regional governments in supporting sustainable lifestyles.

## What are the Key Concerns?

➤ **No Specific Timelines for Fossil Fuel Phase-out:**

○ The agreement lacked a **clear and urgent plan for fossil fuel phase-out**, using vague language such as "transitioning away" without specific timelines or targets.

➤ **No Specified Targets on Tripling of Global Renewable Energy:**

○ The COP28 agreement calls upon countries to contribute to tripling of global installed capacity of renewable energy and doubling of annual improvements in energy efficiency.

○ Tripling is a global target, and it is **not incumbent on every country to individually triple its current installed capacity**. It is thus not clear how this tripling would be ensured.

- ➤ **No Clear Mechanisms for Achieving Adaptation Goals:**
  - ○ Developing countries made it clear that the adaptation draft fell well below their expectations there is **no mention of how these objectives are to be realized** or the mechanisms that will fund these efforts.

- ➤ **Lack of Accountability on Financial Commitments:**
  - ○ There is currently **no established mechanism to hold governments and institutions accountable** for fulfilling their climate financing commitments.

- ➤ **Varying Interpretations on Climate Finance:**
  - ○ Data on climate finance flows are compiled using various methodologies and have varying interpretations.
  - ○ **Double counting of climate finance can occur** when the same funds are reported by multiple parties, leading to an overestimation of the actual financial flows.

- ➤ **Resistance over Phase-down of Coal:**
  - ○ There was a move to stipulate that **no new coal-fired power plants could be opened** without an in-built carbon capture and storage facility, but this was **strongly resisted** by India, China, South Africa, and other countries.

- ➤ **Concerns over Methane Emission Cuts:**
  - ○ The agreement talks about "accelerating and substantially reducing non-carbon-dioxide emissions globally, including in particular methane emissions by 2030.
  - ○ Cutting methane emissions could **involve tweaking agricultural patterns which could be extremely sensitive** in a country like India.

## *What Should be the Way Forward?*

- ➤ **Commit to Climate Finance Targets** :
  - ○ All bilateral donors must live up to their climate finance commitments and set more ambitious targets.
  - ○ The need for **integrating climate finance into national development plans** and policies is even greater than before.

- ➤ **Clear Roadmaps and Timelines:**
  - ○ Develop **clear and detailed roadmaps with specific timelines** for achieving key milestones and targets.
  - ○ Establish interim goals that contribute to the overall long-term objectives, fostering a sense of accountability.

- ➤ **Enhanced National Action Plans (NDCs)**:
  - ○ Countries should r**evise and strengthen their Nationally Determined Contributions (NDCs)** to reflect more ambitious and concrete climate action targets.
  - ○ NDCs should cover a wide range of sectors, including energy, transportation, agriculture, and industry.

### A STATUS CHECK OF MAJOR PARAMETERS

| CRITERIA | REQUIREMENT | CURRENT STATE |
|---|---|---|
| Emissions | Immediate peak and rapid reduction, 2030 emissions must be 43% below 2019 | Emissions still rising. As of now, 2030 emissions likely to be just 2% below 2019 |
| Adaptation | At least $ 215 billion/year needed to fund adaptation projects in developing countries | Barely $ 21 billion/year flowing now |
| Loss and Damage | An estimated $ 100 billion/year required to help countries hit by climate disasters | No money right now |
| Finance | An estimated tens of trillions of dollars per year needed to facilitate all climate actions | Even the modest promised flow of $ 100 bn per year has not materialised |
| Temperature | Hold rise within 1.5 °C from pre-industrial times | Breached for daily temp. Annual avgs likely to be breached in 4 years |

Source: Emission Gap Reports, UNEP. The figures for years later than 2022 are projections. There are no estimates for 2023.

- ➤ **Legislation and Policy Support:**
  - ○ Enact and strengthen domestic legislation and policies that support the implementation of climate targets.
  - ○ **Integrate climate considerations into existing laws** and regulations across various sectors.

- ➤ **Capacity Building:**
  - ○ Invest in capacity building at local, national, and international levels to enhance the ability to implement climate actions effectively.
  - ○ **Provide training and resources** to support technological, financial, and institutional capacity.

- ➤ **International Cooperation:**
  - ○ Facilitate the **transfer of climate-friendly technologies**, especially from developed to developing countries.
  - ○ Share experiences, lessons learned, and best practices among countries to accelerate the adoption of environmentally friendly solutions across industries.

## *Conclusion:*

COPs are crucial in the battle against climate change but the road ahead is both challenging and promising. Its success requires collective determination, unwavering commitment, and a recognition that the stakes are high. By embracing determined contributions and forging genuine partnerships, the global community can build a sustainable and resilient future.

■■■

# Unraveling the Tapestry: Reservations and Caste Dynamics

*This editorial is based on "**What Tavleen Singh doesn't get: Reservation is the oxygen for my uphill journey**" which was published in The Indian Express on 15/12/2023. The article argues that reservation is a necessary corrective measure to address historical injustices and discrimination faced by certain communities. These injustices may have denied these groups equal opportunities in the past.*

**Tag**: GS Paper - 2, Social Empowerment, Issues Related to SCs & STs, Government Policies & Interventions.

Many political experts and people are of the opinion that **reservations** in India should be eliminated. At the same time, many argue that categorizing **affirmative action** discussions as controversy **undermines the struggles and resilience of communities benefiting from reservations**. The supporters highlight the profound impact of reservations, emphasizing that they are not undeserved advantages but a means to address chronic societal disadvantages as recognized by the **Indian Constitution**.

## *What is Reservation System in India?*

➢ **About:**
  ○ The **age-old caste system** of India is responsible for the origination of the reservation system in the country.
    ● In simple terms, it is about facilitating access to seats in government jobs, educational institutions, and even legislatures to certain sections of the population.
  ○ These sections have faced **historical injustice** due to their **caste identity.**
  ○ As a quota based **affirmative action,** the reservation can also be seen as **positive discrimination.**
    ● In India, it is governed by government policies backed by the **Indian Constitution.**

➢ **Historical Background:**
  ○ **William Hunter and Jyotirao Phule** in 1882 originally conceived the idea of caste-based reservation system.
  ○ The reservation system that exists today, in its true sense, was introduced in 1933 when British Prime-Minister Ramsay Macdonald presented the **'Communal Award'.**

  ○ The award made provision for separate electorates for Muslims, Sikhs, Indian Christians, Anglo-Indians, Europeans and the Dalits.
  ○ After long negotiations, Gandhi and Ambedkar signed the **'Poona Pact'**, where it was decided that there would be a single Hindu electorate with certain reservations in it.

➢ **Post-Independence:**
  ○ After independence, **initially reservations** were provided only for **SCs and STs**.
  ○ **OBCs were included** in the ambit of reservation **in 1991** on the recommendations of the **Mandal Commission.**
  ○ The concept of **'creamy layer'** also gained currency through this judgment and provision that reservation for backward classes should be confined to initial appointments only and not extend to promotions.
  ○ Recently, the **Constitutional (103rd Amendment) Act of 2019** has provided 10% reservation in government jobs and educational institutions for the "**economically weaker sections**" in the unreserved category.
    ● The Act amends **Articles 15 and 16** of the Constitution by adding clauses empowering the government to **provide reservation on the basis of economic backwardness**.
    ● This 10% economic reservation is over and above the 50% reservation cap.


EQUALITY    EQUITY
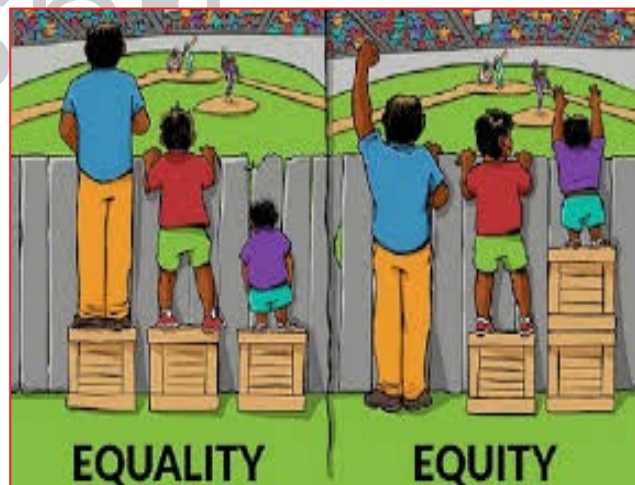
## *How did the Reservation System Evolve in India?*

➢ **Constitutional Provisions and Amendments:**
  ○ **Part XVI** deals with reservation of SC and ST in Central and State legislatures.
  ○ **Article 15(4) and 16(4)** of the Constitution enabled the State and Central Governments to reserve seats in government services for the members of the SC and ST.

- ○ The Constitution was amended by the **Constitution (77ᵗʰ Amendment) Act, 1995 and a new clause (4A)** was inserted in Article 16 to enable the government to **provide reservation in promotion**.
  - ● Later, **clause (4A) was modified by the Constitution (85ᵗʰ Amendment) Act, 2001** to provide **consequential seniority** to SC and ST candidates promoted by giving reservation.
- ○ **Constitutional 81ˢᵗ Amendment Act, 2000** inserted Article 16 (4B) which **enables the state to fill the unfilled vacancies of a year** which are reserved for SCs/STs in the succeeding year, thereby nullifying the ceiling of fifty percent reservation on total number of vacancies of that year.
- ○ **Article 330 and 332** provides for specific representation through reservation of seats for SCs and STs in the Parliament and in the **State Legislative Assemblies** respectively.
  - ● **Article 243D** provides reservation of seats for **SCs and STs in every Panchayat**.
  - ● **Article 233T** provides reservation of seats for **SCs and STs in every Municipality.**

➢ **Judicial Pronouncements:**
- ○ The **State of Madras v. Smt.Champakam Dorairajan (1951)** case was the **first major verdict** of the **Supreme Court** on the issue of Reservation. The case led to the First amendment in the constitution.
  - ● The Supreme Court in the case pointed out that while in the case of employment under the State, Article 16(4) provides for reservations in favour of the backward class of citizens, no such provision was made in Article 15.
  - ● Pursuant to the Supreme Court's order in the case the Parliament **amended Article 15 by inserting Clause (4).**
- ○ In **Indra Sawhney v. Union of India (1992) case** the court examined the scope and extent of Article 16(4).
  - ● The Court has said that the **creamy layer of OBCs should be excluded** from the list of beneficiaries of reservation, there should not be reservation in promotions; **and total reserved quota should not exceed 50%.**
- ○ The Parliament responded by enacting 77ᵗʰ Constitutional Amendment Act which introduced Article 16(4A).
  - ● The article **confers power on the state to reserve seats in favour of SC and ST in**

**promotions** in Public Services if the communities are not adequately represented in public employment.
- ○ The Supreme Court in **M. Nagaraj v. Union Of India 2006 case** while **upholding the constitutional validity of Art 16(4A)** held that any such reservation policy in order to be constitutionally valid shall satisfy the following three constitutional requirements:
  - ● The SC and ST community should be socially and educationally backward.
  - ● The SC and ST communities are not adequately represented in Public employment.
  - ● Such reservation policy shall not affect the overall efficiency in the administration.
- ○ In **Jarnail Singh vs Lachhmi Narain Gupta case of 2018,** Supreme Court holds that reservation in promotions does not require the state to collect quantifiable data on the backwardness of the Scheduled Castes and the Scheduled Tribes.
  - ● The Court held that **creamy layer exclusion extends to SC/STs and, hence the State cannot grant reservations in promotion to SC/ST individuals** who belong to the creamy layer of their community.
- ○ In 2019, the Supreme Court upheld the Karnataka law that allows reservations in promotions for SCs and STs with consequential seniority.

### *What is the Need for Reservation In India?*

➢ **Historical Discrimination:** India has a history of caste-based discrimination, and certain communities have been historically marginalized. Reservation aims to rectify this historical injustice and provide opportunities for those who have been socially and economically disadvantaged.

➢ **Lack of Human Development Indicators:** Data and reports consistently show significant disparities in education, employment, and access to resources among different caste groups.
- ○ Reservation policies are designed to bridge these gaps by ensuring representation and access to opportunities for marginalized communities.

➢ **Promoting Social Justice:** The **Indian Constitution, under Articles 15(4) and 16(4)**, allows for the provision of reservation for socially and educationally backward classes. This constitutional mandate reflects the commitment to promoting social justice and equality.
- ○ Reservation in **educational institutions ensures that students from marginalized communities have access to quality education**.

- This, in turn, helps break the cycle of poverty and uplifts the overall socio-economic status of these communities.

➢ **Prevalence of Backwardness:** The **Mandal Commission, in 1980**, recommended reservations for Other Backward Classes (OBCs) in government jobs and educational institutions. The implementation of these recommendations has aimed at addressing the backwardness of certain social groups.

➢ **Socioeconomic Census Data:** <u>**Socio Economic caste census**</u> data often reveals the disproportionate concentration of poverty and lack of development in specific communities. Reservation policies seek to uplift these communities by providing them with opportunities in education and employment.

➢ **Government Reports and Policies:** Various government reports, such as the **Sachar Committee Report,** highlight the socio-economic backwardness of certain minority communities and <u>**National Sample Survey Organisation reports**</u> highlight the deplorable conditions of lower castes.

➢ **Equitable Representation in Public Employment:** Reservation in government jobs ensures representation from all sections of society in public services, promoting diversity and inclusivity. This is supported by data reflecting under-representation of certain groups in government employment as per <u>**Periodic Labour Force Survey Reports.**</u>

### What are the Issues with Reservation System in India?

➢ **Quality of Education and Employment:** Reservation policies primarily target access to education and government jobs. However, there is a concern that these policies may **compromise the quality of education and workforce in the long run,** as candidates may be selected based on quotas rather than merit.

➢ **Brain Drain:** Some argue that reservation policies can lead to a "brain drain" where **talented individuals from unreserved categories may choose to study or work abroad** to escape the reservation system, potentially causing a loss of talent within the country.

➢ **Resentment and Division:** Reservation can sometimes **create social and economic divisions within society**. This division can lead to resentment among those who do not benefit from the policies, potentially hindering social cohesion and development.

➢ **Inefficiencies and Corruption:** Reservation policies have sometimes been marred by i**nefficiencies, corruption, and the manipulation of caste certificates.** These issues can undermine the effectiveness of the system and hinder development.

➢ **Ghost Beneficiaries:** Reservation policies often rely on broad categories, which may not accurately target the most disadvantaged individuals within those categories. **Some individuals from reserved categories may not be as disadvantaged** as others and may still benefit.

➢ **Stigma and Stereotyping:** Reservation can sometimes lead to the **stigmatization and stereotyping** of individuals from reserved categories, which can impact their self-esteem and overall development.

➢ **Economic Development vs. Social Development:** Reservation policies tend to **focus on social development, but they may not directly address economic disparities.** Economic development is also crucial for addressing inequality and promoting overall development.

➢ **Political Exploitation:** Reservation policies are **sometimes used for political gain,** which can lead to a focus on short-term political objectives rather than long-term development goals.

### What Should be the Solution to Reservation?

➢ **Reboot Infrastructure of Opportunity:** Rebooting our infrastructure of opportunity requires accelerating reforms to our **3Es of education, employability, and employment.**

  ○ **In education,** state governments must **fix government schools** without wasting more energy on small class sizes, teacher qualifications or teacher salaries but **focusing on the binding constraints** of performance management, governance , and soft skills.

  ○ **In employability,** we must **attract massive new financing for skills from employers by redesigning the system around the five design principles** of learning by doing, learning while earning, learning with qualification modularity, learning with multimodal delivery, and learning with signaling value.

  ○ **In employment,** massive non-farm, high-wage, formal job creation requires cutting the regulatory cholesterol for employers that breeds litigation, compliance, filings and criminalisation by passing new labor codes.

➢ **Equal Treatment:** Ensuring that all individuals are treated fairly and without discrimination is a fundamental aspect of promoting equality. This means that **people should not face disadvantages or privileges based on their background, such as their parents' status.**

➢ **Unbiased Competition:** Encouraging competition on a level playing field, **where individuals have equal**

opportunities to succeed based on their skills, abilities, and efforts, is crucial. This promotes excellence by motivating individuals to strive for their best.

➤ **Impartially Judged Outcomes:** Outcomes should be determined **through a fair and impartial evaluation of an individual's performance, skills, and contributions.** This ensures that merit and achievement are the primary factors in determining success.

➤ **Judging Based on Effort and Courage:** Emphasizing the **importance of hard work, determination, and the courage** to pursue one's goals helps foster a culture of personal responsibility and individual effort.

➤ **Use the Resources Judiciously:** A modern state is a welfare state and being a good ancestor requires a government that uses society's resources to subsidize and deliver quality food, education, healthcare and housing to those who need it.

○ **But this Safety Net should not become a Hammock:** Unemployed workers cannot get the same income as those working because people get much more from work than income. And rich people should not get cheap food, gas or diesel.

○ Policy must accelerate the **Aadhaar-enabled Direct Benefit Transfer** revolution for subsidies.

### Conclusion:

**Gandhiji** believed that **Sarvodaya (development of all)** would be accomplished through **Antyodaya (welfare of the weak).** Philosophers have built on his thinking and concluded that if you were designing the world without knowing your place in it, you would ensure fairness for all. Reservation is a valuable tool for social justice but after years of Poorna Swaraj, it's time to discard something often subject to political manipulation **for something more universal over the next few decades.**

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# Decoding FRA 2006: Justice, Conservation, and Challenges

*This editorial is based on "An uphill struggle to grow the Forest Rights Act" which was published in The Hindu on 18/12/2023. The article talks about the challenges and gaps in the implementation of the Forest Rights Act in India.*

On December 18, 2006, the Rajya Sabha endorsed the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, enacted by the Lok Sabha. This Act, commonly known as the **Forest Rights Act**, or FRA, marks a watershed in India's socio-environmental legislation, as it attempts to put an end to the long-drawn conflict over supposed 'forest encroachments'. Simultaneously, it seeks to create a much more democratic, bottom-up forest governance.

Hence, **17 years after it was enacted**, the FRA has barely begun to deliver on its promise of freeing forest-dwellers from historic injustices and democratising forest governance.

### What is
### Forest Rights Act, 2006 and its Provisions?

➤ The Act recognizes and vests the forest rights and occupation in Forest land in **Forest Dwelling Scheduled Tribes (FDST)** and **Other Traditional Forest Dwellers (OTFD)** who have been residing in such forests for generations.

➤ Forest rights can also be claimed by any member or community who has **for at least three generations (75 years) prior to the 13th day of December, 2005 primarily resided in fores**t land for bona fide livelihood needs.

➤ It strengthens the **conservation regime** of the forests while ensuring livelihood and food security of the FDST and OTFD.

➤ The **Gram Sabha** is the authority to initiate the process for determining the nature and extent of **Individual Forest Rights (IFR)** or **Community Forest Rights** (CFR) or both that may be given to FDST and OTFD.

➤ The Act identifies **four types of rights:**

○ **Title rights:** It gives FDST and OTFD the **right to ownership** to land farmed by tribals or forest dwellers subject to a maximum of **4 hectares.** Ownership is only for land that is actually being cultivated by the concerned family and no new lands will be granted.

○ **Use rights**: The rights of the dwellers extend to extracting **Minor Forest Produce**, grazing areas etc.

○ **Relief and development rights:** To **rehabilitate** in case of illegal eviction or forced displacement and to basic amenities, subject to restrictions for forest protection.

- ❍ **Forest management rights:** It includes the right to **protect, regenerate or conserve** or manage any community forest resource which they have been traditionally protecting and conserving for sustainable use.

## What was the Rationale behind the Implementation of FRA, 2006?

- ➢ The FRA, 2006 was implemented to **recognize and vest the forest rights and occupation in forest land in forest dwelling Scheduled Tribes and other traditional forest dwellers** who have been residing in such forests for generations but whose rights could not be recorded.

- ➢ The Act also aimed to **undo the historical injustice occurred to the forest dwelling communities due to the forest management policies of colonial and post-colonial India**, which did not acknowledge their symbiotic relationship with the forests.

- ➢ The Act further intended to **empower the forest dwellers to access and use the forest resources in a sustainable manner**, to conserve the biodiversity and ecological balance, and to protect them from unlawful evictions and displacement.

## What were the Injustices faced by the Forest Dweller Communities?

- ➢ **Pre Colonial Era:** Before colonialism, local communities had traditional rights over forests in their area or even a wider region. Even if kings or chieftains claimed hunting rights in specific forests, local communities still had access to all other benefits from the forests.

- ➢ **Colonial Era:** The colonial government introduced **Indian Forest Act, 1878** which was based on the idea of **'eminent domain'** (that the ruler always owns all property),.
  - ❍ The **Imperial Forest Department** was established to harvest and transform the forest to maximise timber and revenue.
    - It was also **tasked with protecting 'state' property against local communities**, now deemed trespassers.
  - ❍ **The injustices imposed by this colonial forest policy took multiple forms. Viz:**
    - Now that forests were seen as primarily a timber resource, **shifting cultivation was banned**.
    - The so-called **survey and settlement of agricultural lands was incomplete** and biased in favour of the state.

- **'Forest Villages'** were created to ensure labour for forestry operations , wherein forest land was leased for agriculture to households (mostly Adivasis) in return for compulsory labour (virtually bonded).
- Since **forests were now state property**, all access to forest produce was limited, temporary and chargeable, and always at the mercy of the forest bureaucracy that was armed with police powers.

- ➢ Any concessions to local livelihood needs were termed 'privileges' that could be modified or withdrawn any time.
  - Even where access was permitted, the **local community had no right to manage the forest**, as the state logged valuable forests and made heavily used forest de facto open-access.

- ➢ **Post Independence Era:**
  - ❍ After Independence, things didn't change much. When the **government hurriedly brought princely States and zamindari estates into the Union**, they declared their forest areas as state property without checking who was living there.
    - People who had been living there for generations suddenly became 'encroachers.'
  - ❍ The government then leased out forest lands under various campaigns such as 'Grow More Food' to meet the needs of a growing population, but they were never properly regulated.
  - ❍ People displaced by dams **were not given alternative lands** and ended up 'encroaching' on forest land elsewhere.
  - ❍ The **Wildlife (Protection) Act 1972** and the **Forest (Conservation) Act 1980 (FCA)**, again conceived within the framework of eminent domain.
    - Many communities were moved forcefully to establish sanctuaries and national parks.
  - ❍ When using forests for development, the **opinions of local people weren't considered**, and despite charging significant fees, they **weren't adequately compensated** for the impact on their lives.

## How Forest Rights Act, 2006 helps Address these Historical Injustices?

- ➢ The FRA is remarkable because it first of all **acknowledges these historical (colonial) injustices** and their continuation post-Independence. Redress then takes three broad forms.

- ➢ The issue of so-called 'encroachments' is addressed through **recognising individual forest rights (IFRs)** to continue habitation and cultivation or other activities that existed before December 2005.

- ➢ **Forest villages are to be converted into revenue villages** after full rights recognition.
- ➢ The **issue of access and control is addressed by recognising the rights of village communities** to access and use forests and to **own and sell minor forest produce**, and, most importantly, to **manage forests within their customary boundaries**, including in sanctuaries and national parks.
- ➢ It ensures **decentralised forest governance**, linking management authority and responsibility to community rights.
  - ❍ The Act lays down a democratic procedure for identifying whether and where wildlife conservation may require curtailing or extinguishing community rights.
  - ❍ When a community has rights to a forest, it means they automatically **get a say in any changes to the forest and can even stop them**. They also have the right to be compensated if any changes do happen.
  - ❍ This right was reaffirmed by the Supreme Court in the Niyamgiri case, and
- ➢ Although the **Forest Conservation Rules 2022** and **FCA Amendment 2023** seek to bypass this right, States can still put in place such consent mechanisms.

## What are the Issues in Implementation of the Forest Rights Act?

- ➢ **Individual Rights vs. Community Rights:** Politicians in some states have **predominantly focused on individual rights, turning the Act into an 'encroachment regularization' scheme**. This approach neglects the recognition and protection of community rights, which are essential for sustainable forest management.
- ➢ **Poor Recognition of Individual Forest Rights (IFRs):** The recognition of **Individual Forest Rights has been done poorly, often compromised by resistance from the Forest Department**, apathy from other departments, and misuse of technology. Claimants face hardship during the filing process, encountering faulty and non-transparent rejections and arbitrary partial recognitions.
- ➢ **Digital Processes in Areas with Poor Connectivity:** Implementation of digital processes, such as the **VanMitra software in Madhya Pradesh, has posed challenges in areas with poor connectivity and low literacy rate**s. This exacerbates existing injustices and hinders the effective filing and processing of claims.
- ➢ **Incomplete Recognition of Community Forest Rights (CFRs):** The slow and incomplete recognition of community rights to access and manage forests (CFRs) is a significant lacuna in FRA implementation. The forest bureaucracy is resistant to these rights, potentially impeding the empowerment of local communities in managing their forests.
- ➢ **Limited Recognition of CFRs in Most States:** While Maharashtra, Odisha, and Chhattisgarh have made some progress in recognizing CFRs, this has not been the case in most states. Maharashtra's activation of CFRs through de-nationalizing minor forest produce is a positive example, but challenges persist, especially in potential mining areas.
- ➢ **Convenient for Conservationists and Development Lobby:** Non-recognition of community rights serves the interests of hardline conservationists and the development lobby. Communities in protected areas become vulnerable to **'voluntary rehabilitation,'** and forests may be exploited for mining or dams without obtaining community consent.
- ➢ **Forest Villages Not Addressed:** The issue of 'forest villages' has not been adequately addressed in most states, indicating a lack of comprehensive implementation.

## What should be the Way Forward?

- ➢ **Empowerment of Gram Sabha:** Ensure that the Gram Sabha, the local self-government in villages, is actively involved in decision-making processes related to forest management.
- ➢ **Inclusive Decision Making:** Encourage the inclusion of rights holders in the decision-making processes to ensure that their perspectives and needs are considered.
- ➢ **Education and Training:** Conduct awareness programs and training sessions for forest dwellers to inform them about their rights under the FRA.
- ➢ **Capacity Building:** Strengthen the capacity of civil society organizations to support and advocate for the rights of forest dwellers.
- ➢ **Monitoring Mechanisms:** Establish monitoring systems to ensure that the Forest Department and other relevant authorities adhere to the provisions and objectives of the FRA.
- ➢ **Accountability Measures:** Implement accountability measures for any violations or non-compliance with the FRA, ensuring that responsible authorities are held accountable.
- ➢ **Integrated Planning:** Develop integrated plans that consider both the development and conservation needs of forests while respecting the rights and interests of forest dwellers.

➢ **Consultative Processes:** Engage in consultative processes that involve all stakeholders to find a balance between development and conservation goals.

### Conclusion:

Certain states aim to promptly acknowledge rights, but in areas like Chhattisgarh, **swift implementation often advantages the Forest Department, distorting rights and granting excessive control to bureaucrats**. To address this issue, it's crucial for political leaders, bureaucrats, and environmentalists to comprehend and endorse the essence of the FRA. Otherwise, past injustices will endure, forest governance will lack democracy, and the opportunity for community-led conservation and sustainable livelihoods will remain unrealized.

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# Unmasking Left Wing Extremism in India

*This editorial is based on "*Grass-root democracy as a bulwark against Maoists*" which was published in The Hindu on 19/12/2023. The article argues that PESA, if implemented properly, can enable the tribal people to participate in the planning and implementation of development schemes and social justice, and also protect their rights and resources.*
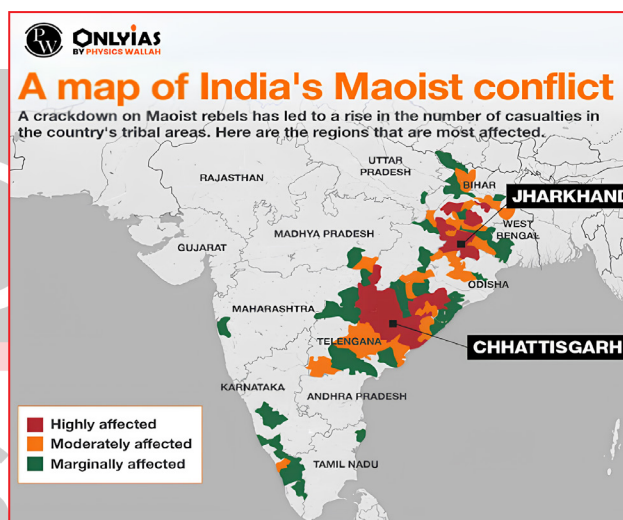
**Tag**: GS Paper - 3, Left Wing Extremism

Chhattisgarh's Assembly elections recently ended, with a key focus on tribal votes. Political parties strategically factored in the significant tribal population, comprising 34% of the state's total votes, as winning their support often determines the government formation in the region.

The tribal regions of Chhattisgarh, particularly in Bastar, are currently grappling with Maoist insurgency, with tribals serving as the primary base for the movement. Elections in these Maoist strongholds, classified as **Schedule Five** areas, have consistently been marred by violence, often exacerbated by boycott calls from the Maoists. This year's elections followed a similar pattern, reflecting the ongoing challenges posed by the Maoist insurgency in these regions.

### What is Left Wing Extremism?

➢ **About:**
  ○ **Left-wing extremism,** also known as left-wing terrorism or radical left-wing movements, refers to political ideologies and groups that advocate for significant **societal and political change through revolutionary means.**

○ LWE groups may target **government institutions, law enforcement agencies,** or private property to further their agenda.

○ The LWE movement in India originated in a **1967 uprising in** <u>Naxalbari</u>**, West Bengal.**

➢ **Presence of LWE in India:** According to the Ministry of Home Affairs, 90 districts in 10 states are affected by LWE, although in varying degrees.

  ○ **The states are** Andhra Pradesh, Bihar, Chhattisgarh, Jharkhand, Kerala, Madhya Pradesh, Maharashtra, Odisha, Telangana and West Bengal.

    ● The most affected states are Chhattisgarh, Jharkhand, Odisha and Bihar, where the LWE groups have a strong presence and carry out frequent attacks on security forces and civilians.



**A map of India's Maoist conflict**
A crackdown on Maoist rebels has led to a rise in the number of casualties in the country's tribal areas. Here are the regions that are most affected.

■ Highly affected
■ Moderately affected
■ Marginally affected

## What are the Reasons behind Left Wing Extremism?

➢ **Inequitable Development:** Many of the **LWE-affected areas are among the least developed regions** of the country, with high levels of poverty, unemployment, illiteracy, malnutrition, and social exclusion.

  ○ The LWE groups exploit the grievances of the marginalized sections of the society, especially the tribals, who have been deprived of their land, forest, and mineral rights by the state and private actors.

➢ **Governance Deficit:** The LWE-affected areas **suffer from a lack of effective governance, administration, and service delivery**. The state institutions are often weak, corrupt, or absent, leaving a vacuum that is filled by the LWE groups.

  ○ The LWE groups also use violence and intimidation to disrupt the democratic processes, such as elections, panchayats, and development schemes.

➢ **Ideological Appeal:** The LWE groups claim to represent the interests of the oppressed and exploited classes, and propagate a radical ideology that rejects parliamentary democracy and advocates armed revolution.

○ They draw **inspiration from the teachings of Mao Zedong**, the Chinese communist leader, and the Naxalbari uprising of 1967, which was led by the Communist Party of India (Marxist-Leninist).

○ Some of the LWE groups also have links with other extremist and separatist movements in India and abroad.

➢ **Globalization and Cultural Displacement:** The impacts of globalization, including cultural changes and displacement, can contribute to a sense of dislocation and alienation.

○ Left-wing extremist movements may offer a sense of identity and purpose to individuals who feel marginalized by these global forces.

## *What Steps have been taken by the Government?*

➢ **Security Measures:**

○ **Deployment of Central Armed Police Forces (CAPFs):** The government has deployed **CAPFs** like **CRPF**, **BSF**, and **ITBP** in LWE-affected areas to conduct counter-insurgency operations and strengthen police presence.

○ **Strengthening State Police:** The government provides financial and logistical support to states for modernizing their police forces, improving intelligence gathering, and training personnel in counter-insurgency tactics.

○ **Establishment of specialized units:** Specialized units like Cobra Commandos and **Greyhounds** have been created to carry out targeted operations against Naxalite leaders and camps.

➢ **Development Initiatives:**

○ **Integrated Development Projects:** The government has launched various schemes like the **Integrated Tribal Development Programme (ITDP)** and **Pradhan Mantri Gram Sadak Yojana (PMGSY)** to improve infrastructure, provide livelihood opportunities, and address basic needs like education and healthcare in LWE-affected areas.

○ **Skill development programs:** The government provides skill development training to youth in LWE-affected areas to make them employable and reduce their vulnerability to Naxalite recruitment.

○ **Promotion of sustainable livelihoods:** Schemes like **Van Dhan Vikas Kendras** and MGNREGA aim to create sustainable livelihood opportunities for tribal communities through forest-based activities and rural employment programs.

➢ **Ensuring Rights and Entitlements:**

○ **Land rights:** The government is taking steps to address the issue of land alienation faced by tribal communities, which is a major cause of Naxalite grievances.

○ **Forest rights:** The Forest Rights Act, 2006, recognizes the traditional rights of tribal communities over forest resources and aims to empower them through community forest management.

○ **Grievance redressal mechanisms:** The government has established grievance redressal mechanisms to address the concerns of local communities and ensure that their rights are protected.

➢ **Other Measures:**

○ **Civic Action Program (CAP):** Financial grants are allocated to Central Armed Police Forces (CAPF) to undertake various Civic Action Programs in LWE affected areas.

○ **Surrender and Rehabilitation Policy:** Rehabilitation package includes an immediate grant of Rs. 2.5 lakh for higher ranked LWE cadres and Rs. 1.5 lakh for middle/lower rank LWE cadres to be kept in their names as Fixed deposit which may be withdrawn after completion of 3 years subject to good behaviour.

● They are also imparted training in a trade / vocation of their liking and paid a monthly stipend of Rs. 4000 for three years.

○ **SAMADHAN Doctrine:** The solution to the LWE problem is not possible with any silver bullet. For this short term, medium term and long-term policies need to be formulated at different levels. Thus 'SAMADHAN' stands for:

● S – Smart Leadership

● A – Aggressive Strategy

● M – Motivation and Training

● A – Actionable Intelligence

● D – Dashboard Based KPIs (Key Performance Indicators) and KRAs (Key Result Areas)

● H – Harnessing Technology

● A – Action plan for each Theatre

● N – No access to Financing

- ❍ **SMART Police:** SMART Police is an acronym for **S**trategic **M**anagement & **A**lternative **R**esponse **T**actics, which refers to the application of data-driven approaches by police authorities.
  - SMART Police aims to improve the quality and efficiency of policing by using various sources of data, such as crime statistics, citizen feedback, social media, etc., to inform decision making and resource allocation.
  - SMART Police also includes alternatives to police dispatch, such as online reports, telephone reporting units, and false alarm reduction.

## What has been the Impact of these Measures so far?

- ➢ The last eight years have seen a significant decline in left-wing extremism violence as well as the geographical spread of LWE.
- ➢ There has been a reduction in incidents in 2022 as compared to 2013. The number of incidents of violence perpetrated by left-wing extremists was 413 in 2022-23.
- ➢ There has been a **75% reduction** (397 to 98) in left-wing extremism-related deaths in 2022 as compared to 2013.
- ➢ In 2022 the resultant deaths and **casualties to security forces reduced by 33%** and by 68%, respectively in comparison to 2021.

## What more should the Government do?

- ➢ **Effective Implementation of PESA Act:**
  - ❍ Ensure the proper and complete implementation of the Provisions of the **Panchayats (Extension to Scheduled Areas) Act, 1996 (PESA)**. This includes issuing clear policy directives to empower gram sabhas as intended by the Act.
  - ❍ Address the **gaps in implementation that have allowed Maoists to exploit the situation** and work towards aligning the Act with the historical and traditional tribal way of life.
- ➢ **Tribal Empowerment and Representation:**
  - ❍ Actively **nurture tribal leadership by providing platforms** for their voices to be heard. This can be achieved through increased representation in local governance structures and political processes.
  - ❍ Acknowledge and **address the aspirations of tribal communities, ensuring that policies and initiatives are designed to accommodate their unique needs** and perspectives.

- ➢ **Development Programs:**
  - ❍ Implement **targeted development programs** that address the socio-economic issues faced by tribal communities. This could include infrastructure development, healthcare, education, and employment opportunities.
  - ❍ Ensure that development initiatives are participatory, involving local communities in decision-making processes.
- ➢ **Counter Maoist Propaganda:**
  - ❍ Launch **communication strategies to counter Maoist propaganda** and **expose the gap between their rhetoric and actual actions**. Highlight instances where the Maoists' agenda does not align with the welfare of the local population.
  - ❍ Collaborate with local media, community leaders, and influencers to spread accurate information and counter misinformation.
- ➢ **Negotiation and Conflict Resolution:**
  - ❍ Explore avenues for **peaceful negotiation with moderate factions** within the Maoist groups. Identify and address the root causes of their discontent to find lasting solutions.
  - ❍ Involve neutral mediators, civil society organizations, and respected community leaders in peacebuilding efforts.
- ➢ **Human Rights Protection:**
  - ❍ Ensure the **protection of human rights**, particularly in conflict zones. Any security measures taken should be in accordance with the rule of law, and efforts should be made to minimize collateral damage and civilian casualties.
- ➢ **Long-term Strategic Planning:**
  - ❍ Develop a **comprehensive, long-term strategy that focuses on sustainable development,** social justice, and inclusive governance. Such an approach aims to address the underlying issues that contribute to the insurgency.

## Conclusion:

The government is actively implementing strategies to eliminate Left-wing Extremism. According to the Union Home Ministry, **Left-wing extremism in India is in its final stage and is expected to be eradicated entirely within the next two years**. Key government priorities involve deploying central forces to counter Maoists, streamlining development efforts, and establishing security camps in regions where administrative penetration has been challenging.

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# India's Anti-Defection Law: Challenges and Solutions

*This editorial is based on "The hollowing out of the anti-defection law" which was published in The Hindu on 19/12/2023. The article discusses the problems and consequences of the anti-defection law in India, which was enacted in 1985 to prevent legislators from switching parties or voting against their party's direction.*

> **Tag**: GS Paper - 2, Indian Constitution, Constitutional Amendments

After long years of legislative meanderings, Parliament enacted the anti-defection law (10th Schedule) to curb political defection. The volume, intensity, recklessness and uncontrolled venality seen in defections in the 1960s and thereafter almost came to a stop after this. Defections not only caused the frequent fall of governments but also caused great instability in political parties with power-seeking politicians wreaking havoc on political parties.

## *What is Anti Defection Law?*

➢ **The Law:**
  ○ The **anti-defection law** (found under the Tenth Schedule of the Constitution) was **enacted to curb frequent floor-crossing** by legislators.
    ● It was added to the Constitution through 52nd Amendment Act in 1985.
  ○ It provides for the disqualification of elected legislators from the legislature in instances where they voluntarily switch parties or vote against the party's direction.

➢ **Ground for Disqualification:**
  ○ If he or she **voluntarily gives up** his or her membership of a political party.
    ● in **Ravi S. Naik versus Union of India (1994)**, the **Supreme Court** clarified that **an MP/MLA need not formally resign from their party to attract disqualification** under the anti-defection law.

➢ The SC had said: "The expression 'voluntarily given up his membership' is **not synonymous with 'resignation'**… Even in the **absence of a formal resignation from membership an inference can be drawn from the conduct** of a member that he has voluntarily given up his membership of the political party to which he belongs."
    ● In **Rajendra Singh Rana vs. Swami Prasad Maurya and Others (2007)**, the SC held that

the act of giving a letter requesting the governor to call on the leader of the other side to form a government would amount to an act of voluntarily giving up membership of the previous party.

  ○ If he or she **votes or abstains from voting in the House**, contrary to any direction issued by his or her political party or anyone authorized to do so, without obtaining prior permission.

  ○ If any member who is **independently elected joins any political party**.
    ● In **Balchandra L. Jarkiholi Vs. B.S. Yeddyurappa (2010)**, the Supreme Court made it clear that **independent MLAs joining the Ministry in a coalition govt., without joining the ruling party, will not sacrifice their independent identity**. Hence joining Council of Ministers doesn't amount to disqualification.

➢ **Exceptions to the anti-defection law:**
  ○ A member will not be disqualified if:
    ● His or her original political party merges with another party, and he or she and at least two-thirds of the members of the original party agree to the merger.

➢ Under the **91st Amendment to the Constitution in 2003**, the exemption from disqualification if one-third of the members form a separate group (the rule prior to the amendment) was removed.
    ● He or she or any other member of his or her party has not accepted the merger and opts to function as a separate group.
    ● He or she makes a split from his or her original party, but does not join any other party.

## *What are the issues with the Anti Defection Law?*

➢ **Undermines the Idea of Democracy:** It undermines the representative and parliamentary democracy by **restricting the legislators' freedom of speech and expression**, and making them accountable to their party leaders rather than the people who elected them.

➢ **Doesn't set any time frame:** It does not provide a clear and timely mechanism for deciding the cases of defection, and leaves the power to disqualify the members to the discretion of the presiding officers of the houses, who may be biased or influenced by political pressures.
  ○ However, the Supreme Court in **Keisham Meghachandra Singh vs The Hon'ble Speaker Manipur Legislative Assembly & Ors (2020)** ruled

that Speakers of assemblies and the Parliament must decide disqualification pleas within a period of three months except in extraordinary circumstances.

➢ **Still Allows Defection:** It allows a group of members to **defect to another party without penalty, if they constitute at least two-thirds of their original party.** This creates a loophole for opportunistic and unethical mergers and splits of parties, and undermines the stability and integrity of the political system.

❍ This way it **encourages the practice of "horse-trading"** or buying and selling of legislators.

➢ **Doesn,t address the Root Cause:** It does not address the root causes of defection, such as lack of intra-party democracy, corruption, and electoral malpractices. It also does not prevent the parties from enticing or accepting the defectors, and thus fails to deter the phenomenon of defection.

## What steps should be taken to Strengthen the Anti Defection Law?

➢ **Addressing Procedural Issues:**

❍ **Shifting Adjudication Power:** The current practice of Speakers of the House deciding on defection cases raises concerns about bias and political influence. Shifting adjudication power to an independent body like the **Election Commission** could enhance impartiality.

● The **2ⁿᵈ ARC recommended** that the issue of disqualification of members on the grounds of **defection should be decided by the President/Governor** on the advice of the Election Commission.

❍ **Time-bound Decisions:** Setting a strict timeframe for adjudicating defection cases would prevent prolonged uncertainty and political manipulation.

❍ **Judicial Recourse:** Allowing direct appeals to the Supreme Court or High Courts in certain cases could provide additional safeguards against arbitrary decisions.

➢ **Strengthening Party Accountability:**

❍ **Internal Democracy:** Introducing regulations to enforce internal party democracy and transparency could reduce disillusionment among legislators, potentially curbing defection motivated by discontent within parties.

❍ **Party Funding Reforms:** Making party funding more transparent and accountable could diminish the influence of money power in politics, which can incentivize defections.

❍ **Anti-Poaching Measures:** Prohibiting or penalizing attempts to induce defections through offers of positions or benefits could discourage such practices.

➢ **Balancing Stability and Accountability:**

❍ **Exempting Mergers:** Exempting defections due to bona fide mergers of parties could encourage political restructuring without undermining stability.

❍ **Public Interest Considerations:** Introducing a mechanism to assess the public interest in cases of defection, allowing for disqualification only when it demonstrably harms public good, could strike a balance between stability and accountability.

❍ **Right to Dissent:** Recognizing the right of legislators to dissent on specific issues without triggering disqualification could promote healthy debate and independent thought within legislatures.

## How are Other Countries dealing with Defections?

➢ **UK:** Political defections in the UK are not explicitly prohibited by law, but defectors may face repercussions from their party and constituents. Consequences may include losing party privileges, facing disciplinary action, and risking legal challenges such as recall petitions or by-elections.

➢ **USA:** Similarly, the USA lacks a specific law against political defections. While rare, defections may occur for ideological or strategic reasons. Backlash from the former party, constituents, and media is possible, but defectors may also gain new support. Running for re-election under the new party label presents both challenges and opportunities, depending on the political climate.

## Conclusion:

The Anti-Defection Law in the Indian Constitution aims for democratic stability by curbing political defections. Despite its importance, challenges such as restricting legislators' freedom and procedural issues underscore the necessity for reforms. Inspired by international experiences, proposed steps aim to balance stability and accountability. Recognizing exemptions for party mergers and public interest, the law must evolve to remain relevant in India's dynamic political landscape, ensuring a robust democracy.

■■■

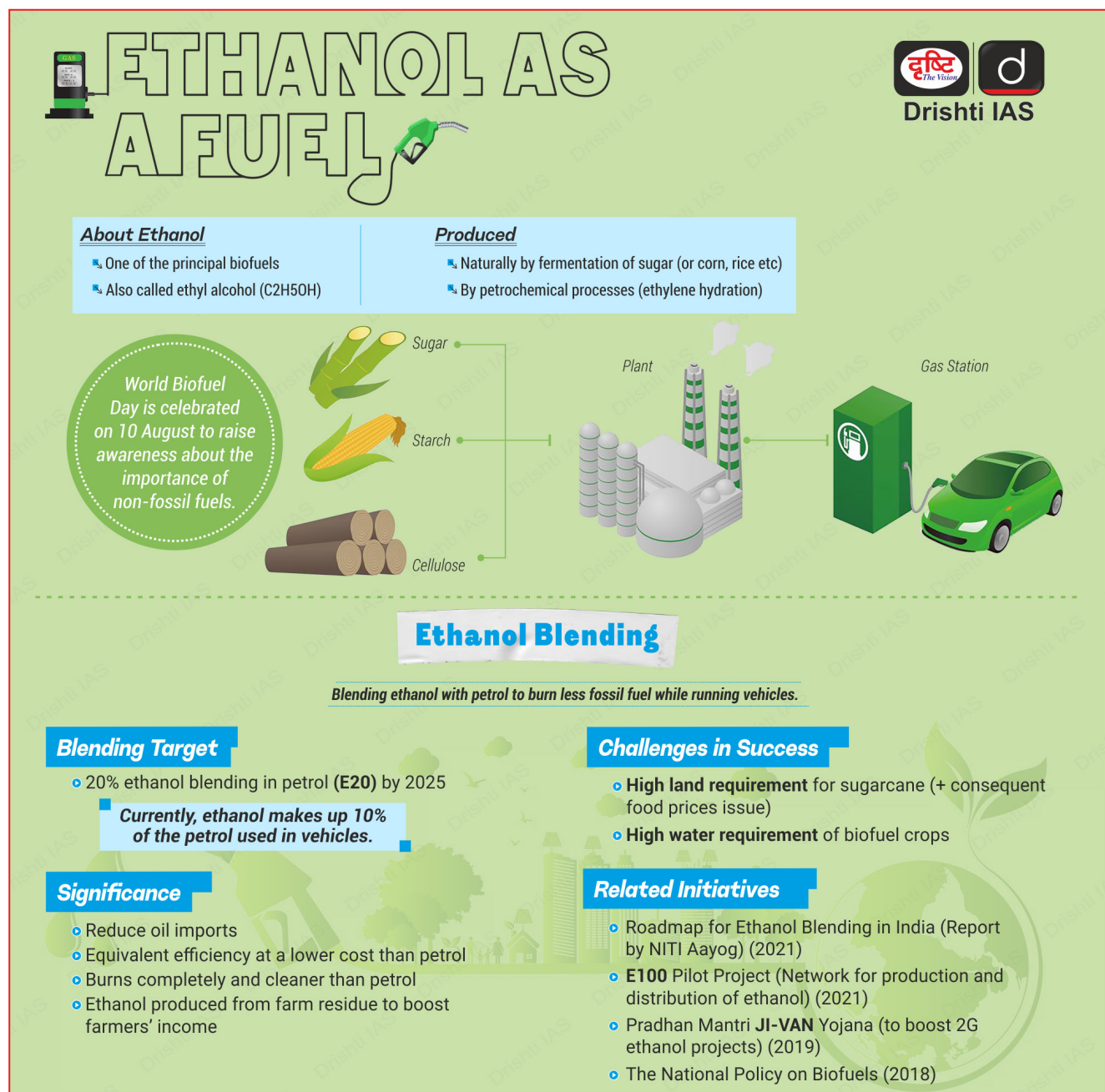# India's Ethanol Revolution: Progress & Challenges

*This editorial is based on "India's ethanol conundrum" which was published in The Hindu on 20/12/2023. The article discusses the challenges and opportunities of India's ethanol blending programme, which aims to reduce the country's dependence on fossil fuels and promote renewable energy sources.*

**Tag**: GS Paper - 3, Environmental Pollution & Degradation, Renewable Energy

As more than 100 countries at **COP28** in Dubai **pledged the tripling of global renewable energy capacity by 2030**, India faces a tightrope walk with regard to its ethanol blending target. While **Ethanol Blended Petrol (EBP)** increased from 1.6% in 2013-14 to 11.8% in 2022-23, the 20% target by 2025 has run into trouble with low sugar stocks in 2022-23 and the impending shortfall in sugarcane production this year. As evident from Minister of Consumer Affairs, the government is looking at a major transition towards grain-based ethanol for meeting the target.
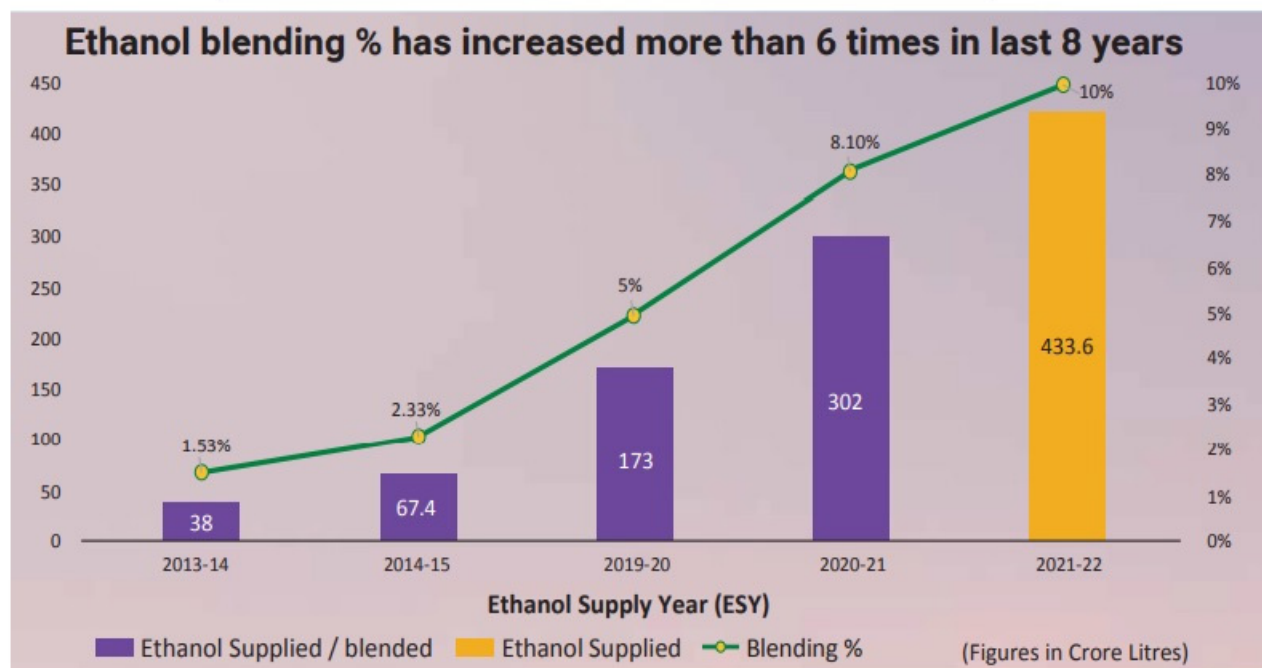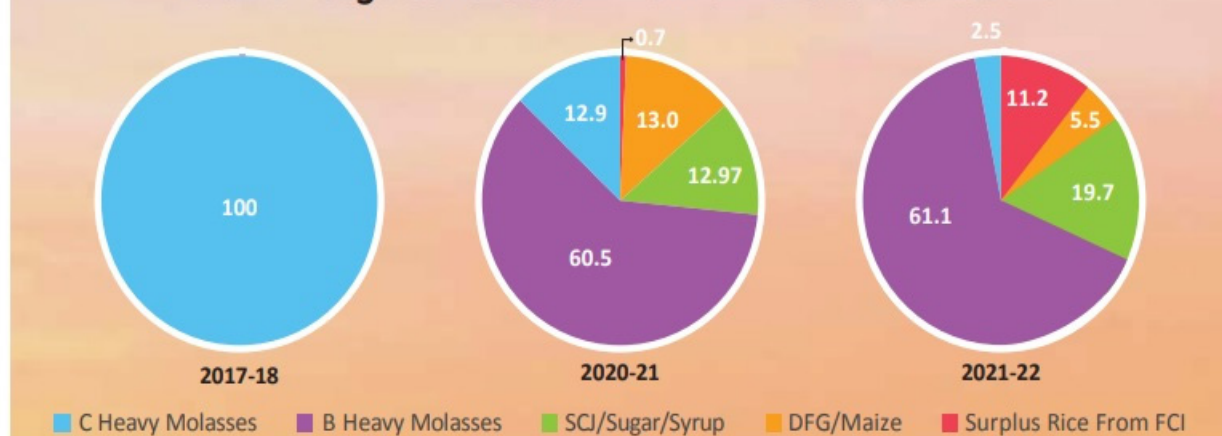
The recent authorisation of the **National Agricultural Cooperative Marketing Federation of India (NAFED)** and the **National Cooperative Consumers' Federation of India (NCCF)** to procure maize (corn) for supplying ethanol distilleries indicates emphasis on this transition and will boost an organised maize-feed supply chain for ethanol. This, however, risks creating more challenges for the economy.

## ETHANOL AS A FUEL

**Drishti IAS**

### About Ethanol
- One of the principal biofuels
- Also called ethyl alcohol ($C_2H_5OH$)

### Produced
- Naturally by fermentation of sugar (or corn, rice etc)
- By petrochemical processes (ethylene hydration)

*World Biofuel Day is celebrated on 10 August to raise awareness about the importance of non-fossil fuels.*

Sugar → Plant → Gas Station

Starch

Cellulose

### Ethanol Blending

*Blending ethanol with petrol to burn less fossil fuel while running vehicles.*

### Blending Target
- 20% ethanol blending in petrol **(E20)** by 2025

*Currently, ethanol makes up 10% of the petrol used in vehicles.*

### Significance
- Reduce oil imports
- Equivalent efficiency at a lower cost than petrol
- Burns completely and cleaner than petrol
- Ethanol produced from farm residue to boost farmers' income

### Challenges in Success
- **High land requirement** for sugarcane (+ consequent food prices issue)
- **High water requirement** of biofuel crops

### Related Initiatives
- Roadmap for Ethanol Blending in India (Report by NITI Aayog) (2021)
- **E100** Pilot Project (Network for production and distribution of ethanol) (2021)
- Pradhan Mantri **JI-VAN** Yojana (to boost 2G ethanol projects) (2019)
- The National Policy on Biofuels (2018)

### *What is Ethanol?*

➢ **Ethanol:** Ethanol is an organic compound which is a clear, **colorless liquid** that is **flammable** and has a characteristic odour.

- ○ **Production:** It can be **produced through the fermentation of sugars by yeast**, a process that is used in the production of alcoholic beverages. It can also be synthesized through chemical processes, such as hydration of ethylene.

- ○ **Uses:**
  - ● **Beverages:** Ethanol is the type of alcohol found in alcoholic beverages. It is consumed socially in various forms, such as beer, wine, and spirits.
  - ● **Fuel:** It is used as a biofuel and is often mixed with gasoline to produce ethanol-blended fuels.
  - ● **Industrial Solvent:** Due to its ability to dissolve a wide range of substances, ethanol is used as a solvent in the manufacturing of pharmaceuticals, perfumes, and other products.
  - ● **Medical and Laboratory Uses:** Ethanol is used as an antiseptic, disinfectant, and a preservative in medical and laboratory settings.
  - ● **Chemical Feedstock:** It serves as a feedstock for the production of various chemicals.

## ETHANOL BLENDING IN INDIA

### Ethanol blending % has increased more than 6 times in last 8 years

| Ethanol Supply Year (ESY) | Ethanol Supplied / blended | Blending % | Ethanol Supplied |
|---|---|---|---|
| 2013-14 | 38 | 1.53% | |
| 2014-15 | 67.4 | 2.33% | |
| 2019-20 | 173 | 5% | |
| 2020-21 | 302 | 8.10% | |
| 2021-22 | | 10% | 433.6 |

Legend: ■ Ethanol Supplied / blended  ■ Ethanol Supplied  —○— Blending %  (Figures in Crore Litres)

### Ethanol %age contribution from different feed stocks

**2017-18**
- C Heavy Molasses: 100

**2020-21**
- B Heavy Molasses: 60.5
- C Heavy Molasses: 12.9
- DFG/Maize: 13.0
- SCJ/Sugar/Syrup: 12.97
- Surplus Rice From FCI: 0.7

**2021-22**
- B Heavy Molasses: 61.1
- SCJ/Sugar/Syrup: 19.7
- Surplus Rice From FCI: 11.2
- DFG/Maize: 5.5
- C Heavy Molasses: 2.5

Legend: ■ C Heavy Molasses  ■ B Heavy Molasses  ■ SCJ/Sugar/Syrup  ■ DFG/Maize  ■ Surplus Rice From FCI

## What is Ethanol Blending Program (EBP)?

➢ The EBP is an initiative by the Government of India to promote the use of ethanol, a renewable and environment-friendly fuel, in petrol.

➢ The program **aims to reduce the import of fuels** from other countries, conserve foreign exchange, and increase value addition in the <u>sugar industry</u>.

➢ The target of **10% ethanol blending set in the 'Roadmap for Ethanol Blending in India 2020-25'** for Ethanol Supply Year (ESY) 2021-22 has already been achieved and Public Sector Oil Marketing Companies (OMCs) have **started selling E20 (20% ethanol blended) petrol** across the country.

  ❍ Further, the <u>National Policy on Biofuels</u> – 2018 targets 20% blending of ethanol in petrol by ESY 2025-26.

➢ Ethanol is mainly produced from a **by-product of the sugar industry,** namely molasses, but other raw materials like sugarcane juice, sugar, sugar syrup, and damaged food grains can also be used.

  ❍ The Government has taken various steps to facilitate the procurement and supply of ethanol under the EBP, such as fixing remunerative prices, simplifying the procedure, waiving excise duty, and extending financial assistance.

➢ Due to effective Government policies, the supply of ethanol to OMCs has **increased by more than 13 times** in ESY 2022-23 from ESY 2013-14.

  ❍ The blending percentage has also increased from 1.53% in ESY 2013-14 to targeted 12% in ESY 2022-23.

## What is the Significance of Ethanol Blending in Fuels?

➢ **Reducing Fossil Fuel Dependence:** India imports most of its oil, which makes it vulnerable to fluctuations in global markets and geopolitical risks. By using ethanol, India **can reduce its oil imports and increase its energy self-reliance.**

➢ **Protecting the Environment:** Ethanol burns cleaner than gasoline, which means it produces less harmful emissions that cause air pollution and climate change. By using ethanol, India can improve its air quality and meet its climate goals.

  ❍ According to a study by the Indian Institute of Science, Bangalore, blending **ethanol with petrol can reduce the carbon monoxide emissions by 30-50%** and hydrocarbon emissions by 20%.

➢ **Supporting Farmers:** Ethanol production requires agricultural inputs, such as sugarcane or corn. By using ethanol, India can create a **new demand for** these crops, which can boost the income and livelihood of farmers and rural communities.

➢ **Enhancing Energy Security:** Ethanol is a domestic and diverse source of energy, which can reduce India's dependence on a single and foreign source of energy. By using ethanol, India can increase its energy security and resilience.

➢ **Generating Economic Benefits:** Ethanol blending can stimulate the growth of the ethanol industry, which can create new jobs, investments, and innovations. It can also help India develop a more sustainable and modern energy system.

  ❍ Ethanol blending can **save the country USD 4 billion per annum,** i.e., Rs. 30,000 cr.

➢ **Enhanced Vehicular Performance:** Ethanol has a **higher <u>octane rating</u> than gasoline,** which means that it can improve the engine performance and reduce the knocking tendency.

## What are the Limitations of Ethanol Blending?

➢ **Feedstock Availability and Cost:** Ethanol production requires a large amount of biomass, such as sugarcane, corn, or lignocellulosic materials, which may compete with food, feed, or other uses. The availability and cost of these feedstocks may vary depending on the season, weather, market, and policy conditions.

➢ **Conflict with Food Security:** The use of corn for ethanol production come directly in conflict with food security.

  ❍ In the case of sugarcane, **ethanol is produced by processing the molasses (C-heavy/B-heavy)** and constitutes minimal trade-off with the sugar output.

  ❍ The **B-heavy molasses path produces less sugar** compared to the C-heavy one, but both produce sugar and ethanol simultaneously from sugarcane.

  ❍ But **using corn for producing ethanol directly reduces its use as food** or livestock feed.

    ● It not only diverts grain to fuel use, but also links food prices directly with crude oil prices through the demand side.

➢ **Conversion Efficiency and Yield:** Ethanol production involves several steps, such as pretreatment, hydrolysis, fermentation, and distillation, which may have different efficiencies and yields depending on the type and quality of the feedstock, the process technology, and the operating conditions.

  ❍ For example, **lignocellulosic biomass, which is more abundant and diverse than sugarcane or corn, requires more intensive and complex**

**pretreatment and hydrolysis** to break down the cellulose and hemicellulose into fermentable sugars.

○ The conversion efficiency and yield of ethanol also affect the economic viability and environmental impact of the production process.

➤ **Infrastructure and Distribution:** Ethanol production requires adequate infrastructure and distribution systems to transport, store, and deliver the feedstock and the fuel to the end-users. This may involve high capital and operating costs, as well as logistical and regulatory challenges.

○ For example, **ethanol is corrosive and hygroscopic,** which means that it can damage or contaminate the existing pipelines, tanks, and pumps that are designed for gasoline or diesel.

➤ **Vehicle Compatibility and Performance:** Ethanol production requires compatible and efficient vehicles that can run on ethanol-blended fuels or pure ethanol. This may **require modifications or adaptations in the engine, fuel system, and emission control devices** of the vehicles, as well as changes in the driving behavior and maintenance practices of the drivers.

○ For example, Ethanol has a **lower energy density than gasoline, which means that more volume of ethanol is needed** to provide the same amount of energy, resulting in higher transportation and storage costs.

## *What are the Steps taken by the Government to Boost Ethanol Blending?*

➤ **Differential Ethanol Pricing:** The government has fixed different prices for ethanol derived from C heavy molasses, B heavy molasses, sugarcane juice/sugar/ sugar syrup, and damaged food grains or rice.

○ The prices are revised annually by the **Cabinet Committee on Economic Affairs (CCEA)** based on various factors such as cost of production, availability, and demand.

○ The differential pricing policy has resulted in increased supply of ethanol for the Ethanol Blended Petrol (EBP) programme and helped achieve 20% ethanol blending in petrol by 2025.

➤ **Interest Subvention Scheme:** With a view to enhance the ethanol production capacity in the country to achieve the blending targets set under EBP Programme, the Government has notified various ethanol interest subvention schemes from July 2018 to April 2022.

○ Under these ethanol interest subvention schemes, Government is **facilitating entrepreneurs to set**

up new distilleries **(molasses based, grain-based and dual-feed based) or expansion of existing distilleries** (molasses based, grain-based and dual-feed based) throughout the country.

● **Interest subvention @ 6% per annum or 50% of rate of interest charged by banks/financial institutions,** whichever is lower, on the loans to be extended by banks/financial institutions is being borne by the Central Government for five years including one-year moratorium.

➤ **Tax relief:** Lower taxes are levied on E10 and E20 blends compared to unblended petrol, making them more cost-competitive for consumers.

○ Lower excise duty and GST rates for ethanol compared to petrol.

➤ **Incentives for E20-compatible vehicles:** Tax benefits and other incentives are being considered for manufacturers and buyers of vehicles compatible with higher ethanol blends.

## *What Steps can be Taken Further to Boost Ethanol Program?*

➤ **Production Boost:**

○ **Diversify Feedstock:** Encourage production from non-food sources like cellulosic biomass, waste paper, and agricultural residues. This reduces competition with food security and utilizes waste.

○ **Support 2G and 3G Biofuels:** Invest in research and development for second and third-generation ethanol production technologies, which use non-edible resources.

○ **Expand Production Capacity:** Incentivize setting up new ethanol distilleries and modernize existing ones through financial assistance and streamlined bureaucratic processes.

○ **Promote Regional Production:** Focus on establishing distilleries closer to fuel depots to minimize transportation costs and optimize logistics.

➤ **Policy and Market Mechanisms:**

○ **Raise Blending Mandate:** Gradually increase the mandatory ethanol blending percentage beyond the current target of 20% by 2025. This creates a guaranteed market for ethanol producers.

○ **Long-term Contracts:** Offer fixed-price contracts with oil marketing companies to encourage stable investment in ethanol production.

○ **Support Research and Development:** Invest in research on optimizing blending ratios, addressing engine compatibility issues, and developing efficient conversion technologies.

➢ **Technological Advancement:**

○ **Upgrade Infrastructure:** Invest in storage and transportation infrastructure for ethanol to ensure efficient supply chain management.

○ **Vehicle Compatibility:** Work with automobile manufacturers to develop engines and vehicles compatible with higher ethanol blends.

○ **Quality Control:** Implement stringent quality standards for ethanol production and blending to ensure fuel performance and vehicle safety.

➢ **Public Awareness and Education:**

○ **Create Awareness Campaigns:** Educate consumers about the benefits of ethanol blending, dispel myths about its impact on vehicles, and encourage its adoption.

○ **Transparency and Labeling:** Ensure clear labeling of ethanol blended fuels at petrol stations to inform consumers about their choice.

## *Conclusion:*

India has made significant progress in its Ethanol Blending Program. This achievement in the course of last 8-10 years has not only **augmented India's energy security but also translated into a forex impact of over Rs.41,500 crores, reduced Green House Gas (GHG) emissions of 27 lakh Metric Tonne (MT)** and also led to the expeditious payment of over Rs.40,600 crores to farmers.

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# Transforming Indian Education: Towards Long-Term Vision

*This editorial is based on "A broken education system: Apps and coaching classes are the wrong solution" which was published in Indian Express on 21/12/2023. The article discusses the education sector being in a state of crisis partly due to reckless commercialisation and politicisation which must be rebuilt with a step-by-step strategy and a national consensus that commits to insulate it from narrow political considerations.*

**Tag**: GS Paper - 2, Education, Issues Arising Out of Design & Implementation of Policies, Issues Relating to Development

By 2030, India will have the largest number of young population in the globe, a population size that will be a boon only if these young people are skilled enough to join the workforce. **Quality education** will play a major role in it. But the current state of Education faces major challenges like lack of adequate infrastructure, **low government expenditure on education (less than 3.5% of the GDP)** and as per the **Unified District Information System For Education (UDISE) the pupil-to-teacher ratio at the national level for elementary schools is 24:1.** So it's high time to tune the Indian Education System with global standards and adopt modern learning approaches that are responsive and relevant. Also, vitalise **National Education Policy 2020** to see the light of day.

## *What is the Status of Education System in India?*

➢ **History:**

○ The **'Gurukul'** was a type of education system in ancient India with shishya (students) living with the guru in the same house. **Nalanda** has the **oldest university system of education** in the world. Students from across the world were attracted to Indian knowledge systems.

○ British Government brought various reforms in the education system through **Macaulay Committee recommendations, Woods' Despatch, Hunter Commission Report, University Education Act, 2004** which had profound impact on society.

➢ **Current Status of Education in India:**

➢ The gender gap in literacy in India began narrowing in 1991, with an accelerated pace of improvement. However, the current female literacy rate in India still significantly lags behind the global average of 87%, as reported by **UNESCO in 2015**.

➢ Furthermore, India's **overall literacy rate of 74.04%** is below the world average of 86.3%. A significant number of states in India fall within the average range, just slightly above the national literacy level.

| Table 1<br>Literacy Rate Trend in India 1951-2011 | | | | | |
|---|---|---|---|---|---|
| **Census Year** | **Persons** | **Decadal Increase** | **Males** | **Females** | **Gender gap** |
| 1951 | 18.33 | | 27.16 | 8.86 | 18.30 |
| 1961 | 28.3 | 9.97 | 40.40 | 15.35 | 25.05 |
| 1971 | 34.45 | 6.15 | 45.96 | 21.97 | 23.99 |
| 1981 | 43.57 | 9.12 | 56.38 | 29.76 | 26.62 |
| 1991 | 52.21 | 8.64 | 64.13 | 39.29 | 24.84 |
| 2001 | 64.83 | 12.62 | 75.26 | 53.67 | 21.59 |
| 2011 | 74.04 | 9.21 | 82.14 | 65.46 | 16.68 |

*Source: Census Of India*

➢ **Different Legal and Constitutional Provisions:**

○ **Legal Provisions:**

● The government has implemented the **Sarva Shiksha Abhiyan (SSA)** as part of the **Right to Education (RTE) Act** for primary level (6-14 years).

- Moving to the secondary level **(age group 14-18)**, the government has extended the SSA to secondary education through the **Rashtriya Madhyamik Shiksha Abhiyan**.
- Higher education, encompassing undergraduate (UG), postgraduate (PG), and MPhil/PhD levels, is addressed by the government through the **Rashtriya Uchhattar Shiksha Abhiyan (RUSA)** to meet the requirements of higher education.

➢ All these schemes have been subsumed under the umbrella scheme of **Samagra Shiksha Abhiyan.**

   ○ **Constitutional Provisions:**
     - **Article 45** of the **Directive Principles of State Policy (DPSP)** initially stipulated that the government should ensure free and compulsory education for all children up to the age of 14 within 10 years of the Constitution's commencement.

➢ Additionally, Article 45 was amended to **extend its scope to encompass early childhood care and education for children below six years of age.**
     - Since this objective wasn't realized, the **86th Constitutional Amendment Act of 2002** introduced **Article 21A,** transforming elementary education into a fundamental right instead of a directive principle.

## *What are the Issues in the School Education System in India?*

➢ **Election-Driven Focus of the Government:**
   ○ During elections, the poor gain bargaining power, leading to a focus on immediate needs like freebies and guarantees. While people aspire for income security and better basic entitlements, **they are sceptical about the government's commitment, be it education, health, living conditions etc.**

➢ **Education Sector Crisis:**
   ○ The education sector is in crisis due to **reckless commercialization and politicisation.** It lacks a step-by-step strategy and a national consensus and focuses on easy solutions like technology as a substitute for solid investments in quality education.

➢ **Limits of Edutech:**
   ○ The book **"The Learning Trap"** highlights the limitations of technology in fixing the broken education system. Edutech start-ups, **such as Byju's,** failed to deliver on promises, emphasising the need for good teachers over technological solutions.

➢ **Impact of Tuition Industry:**
   ○ The tuition industry, **valued at over Rs 58 billion,** is rapidly expanding. Government policies **devaluing high school examinations and the focus on national exams as gateways to professional careers** contribute to the growth of this parallel education system.

➢ **Preference for Tuition Centers:**
   ○ **Parents increasingly prefer tuition centres to regular schools,** leading to stress-induced suicides and mental health problems among students. **The divide between well-educated and less-educated students is widening.**

➢ **Quality Variance in Schools:**
   ○ **India's public and private schools vary in quality, with poorly trained and paid teachers** contributing to the rise of tuition centers. The government's focus on running its own schools neglects monitoring and quality improvement.

➢ **Widening Educational Divide:**
   ○ **The educational divide between the rich and poor is widening,** with the second category of students struggling within a failed system. The government's approach to **teaching materials lacks innovation** and fails to address the growing challenges.

➢ **Lack of Societal Involvement:**
   ○ Education **should become a societal concern rather than solely a government responsibility, which is missing in Indian context.**
     - Solutions involve widening **social participation, engaging civil society, and encouraging volunteerism,** while also making teachers accountable for results.

➢ **Insufficient Education Spending:**
   ○ India's education **spending is insufficient, stagnating at 2.61% of GDP, far below the recommended 6% by the Education 2030 Framework for Action.** Adequate attention and increased budget allocation are missing for real growth and development.

➢ **Political Leadership and Fiscal Imagination:**
   ○ Real growth and development hinge on political leadership commitment and fiscal imagination. With India's spending on education remaining low, a fundamental shift is lacking that can meet the challenges and achieve global leadership in education.

➢ **Inadequate Infrastructure in Schools:**
  ○ According to the **UDISE for 2019-20**, only **12% of schools have internet facilities** and 30% have computers.
    ● About 42% of these schools lacked furniture, 23% lacked electricity, 22% lacked ramps for the <u>physically disabled</u>, and **15% lacked WASH facilities** (which include drinking water, toilets, and hand wash basins).

➢ **High Dropout Rate:**
  ○ The dropout rate is very high in primary and secondary levels. Most of the students in the 6-14 age groups leave the school before completing their education. It leads to a waste of financial and human resources.
    ● According to the <u>National Family Health Survey-5</u>, not being interested in studies was the reason given by **21.4% of girls and 35.7% of boys aged between 6 to 17 years for dropping out of school before the 2019-20 school year.**

## *What are the Long-Term Solutions to the Education System in India?*

➢ **Towards Experiential Learning Approach:**
  ○ There is a need for **inclusion of problem-solving and decision-making related subjects in the school curriculum** to offer hands-on learning experience to students and prepare them to face the outside world when they enter into the workforce.
    ● **Experiential Learning can reap maximum benefit** from its ability to extract active participation from every student, which in turn triggers their <u>emotional intelligence</u> and sets them on a path to self-learning.
    ● Linking **<u>Artificial Intelligence</u> with the Educational Sector** will also facilitate experiential learning.

➢ **Implementation of National Education Policy:**
  ○ The implementation of the NEP can help shake the education system from its slumber.
  ○ Moving away from the **current 10+2 system to a 5+3+3+4 system** will bring the pre-school age group formally into the education set-up, **which is not being implemented uniformly across all the states.**

➢ **Education-Employment Corridor:**
  ○ India's educational setup needs to be enhanced by **integrating vocational learning with mainstream education** and providing right

mentorship at school (especially in government schools) to ensure that **students are guided in the right direction** from the start and are aware of career opportunities.
  ○ Students in rural regions have great potential and are motivated to study but lack the right mentoring**. This is required not just for the children but also for their parents** that will in a way also reduce the gender gap in education.

➢ **Reducing the Language Barrier:**
  ○ While keeping English as a means of **education for international understanding (EIU)**, it is important to give other Indian languages equal importance.
  ○ Special publication agencies **can be established to translate resources** into a variety of languages so that all Indian students have the same opportunity regardless of their linguistic background.

➢ **Taking a Note From Past to Future:**
  ○ It is important to look to the future while keeping our **long-established roots** in mind.
  ○ There is **much to learn from the 'Gurukul' system** of ancient India, which focussed on holistic development beyond academics, centuries before the topic became a buzzword in modern education.
  ○ <u>Ethics and value education</u> remained at the core of learning in the ancient Indian education system. Values such as **self-reliance, empathy, creativity, and integrity** remain a major area in ancient India that have relevance even today.
  ○ The ancient evaluation of education was not restricted to grading thematic knowledge. **Students were assessed on the skills they learned and how well they can apply practical knowledge to real-life situations.**
    ● The modern education system can also devise similar systems of assessment.

## *What are the Government Initiatives Related to Educational Reforms?*

➢ **<u>National Programme on Technology Enhanced Learning</u>**
➢ **<u>Samagra Shiksha Abhiyan</u>**
➢ **<u>PRAGYATA</u>**
➢ **<u>Mid Day Meal Scheme</u>**
➢ **<u>Beti Bachao Beti Padhao</u>**
➢ **<u>PM SHRI Schools</u>**
  **<u>National Education Policy, 2020 l Editorial Analysis (English) July 31, 2020</u>**

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# Agricultural Capital Decline: Unveiling Causes and Cures

*This editorial is based on "Agri capex, a black box" which was published in The Hindu Business Line on 21/12/2023. The article discusses the issue of declining Gross capital formation in agriculture.*

**Tag**: GS paper - 3, Agricultural Resources, Irrigation

The state of capital formation in agriculture has been a subject of debate. **Gross capital formation in agriculture (GCFA) has been decelerating** since 2013-14. The GCFA, as a percentage of GDP of agriculture and allied sectors, has come down from 17.5% in the three years ending 2013-14, to 15.7% in the three years ending 2020-21.

## Why is there a Reduction in Gross Capital Formation in Agriculture?

➢ There is an overall trend of deceleration in capital formation in the economy as a whole, but the rate of deceleration in agriculture is steeper.
  ○ The **compound annual growth rate (CAGR)** of both GCF and GCFA was 9% during the period 2004-05 to 2013-14.
  ○ But the **CAGR of the GCFA has dropped sharply to 3% in the period from 2013-14 to 2020-21** while that of GCF has recorded a slightly higher rate of 5%.
➢ The GCFA has crucial implications for future growth of agriculture and, therefore, it is imperative to understand the possible reasons for this deceleration.

## What are the Reasons behind this Deceleration?

➢ **Compositional Shift in Public Investment:** There is a suggestion that the deceleration in public investment could be **due to a shift away from major and medium irrigation projects to micro irrigation**.
  ○ Over 90% of public investment in agriculture is related to irrigation, and a change in focus may have led to a slowdown in overall capital formation.
➢ **Changes in the RKVY Program:** The **Rashtriya Krishi Vikas Yojana (RKVY)** played a crucial role in spurring state investments in agriculture.
  ○ Since 2014, as the **States were meeting 40% of the expenditure of RKVY, this requirement has been relaxed**. This has diluted the incentive structure for States to keep investing in agriculture year after year.

➢ **Exclusions from Agriculture Sector:** Important expenditures on rural electrification, power supply, rural roads, storage, agricultural research, fertilizer and pesticide industries **are not categorized under agriculture or allied sectors.**
  ○ This exclusion might **lead to a gap in recognizing the overall contributions** of these sectors to agricultural growth.
➢ **Reduction in Private Investment:** More than 80%t of the investment in agriculture is by the private sector . Terms of trade in agriculture (vis-à-vis non-agriculture, ToT) is an important determinant of private investment in agriculture.
  ○ ToT reflect the prices received by farmers and the ToT has decelerated substantially in the recent period.
  ○ This deceleration in ToT may have also dampened the private investment in agriculture.
➢ Private sector investments, which contribute significantly to agriculture, are influenced by terms of trade (ToT).
  ○ The deceleration in ToT, reflecting prices received by farmers, may have adversely affected private investment in agriculture.
➢ **Shift in Agricultural Practices:** A shift in agricultural practices towards more modern and efficient methods, such as micro irrigation, might have influenced the type and scale of capital investments.
➢ **Economic and Policy Factors:** Broader economic factors, including changes in government policies and agricultural practices, could contribute to the deceleration.
  ○ For instance, changes in policies related to subsidies, credit availability, or market access could impact investment decisions.
➢ **Global and Climate Factors:** Global economic conditions, climate change, and other external factors can also impact agriculture and capital formation. For instance, changing weather patterns may affect the viability of certain agricultural investments because climate change impacts agriculture with reduced profitability and higher crop failure risks due to temperature changes, pests, and diseases..

## What could be the Impact of this Reduction in GCAF?

➢ **Slower Agricultural Growth:** When capital formation declines, the agricultural sector may grow slower. This is because **less capital means less investment in infrastructure,** technology, and modern farming practices, which are important for improving productivity.

○ For example, a study in India found that a 10% increase in public capital formation in agriculture led to a 1.6% increase in agricultural output.

➢ **Income Inequality:** According to the **World Bank**, the average income of the poorest 40% of the population in low-income countries was $1.25 per day in 2018, while the average income of the richest 10% was $9.61 per day. A slow-growing agricultural sector may exacerbate this inequality.

➢ **Job Creation Challenges:** Agriculture is a major employer. If the sector grows slower, it may create fewer jobs in farming and related industries. This may increase the unemployment or underemployment rate in rural areas.

➢ **Impact on Food Security:** According to the FAO, the **world will need to produce 50% more food by 2050 to feed 9.7 billion people.** A slow-growing agricultural sector may hinder this goal and increase the risk of hunger and malnutrition.

➢ **Reduced Competitiveness:** India's agricultural sector may become less competitive globally if it lacks capital investment.

○ Other countries that invest more in their agriculture may have an edge in terms of efficiency, technology adoption, and export capabilities.

➢ **Environmental Consequences:** A study by the World Resources Institute (WRI) estimated that **agriculture was responsible for 24% of the global greenhouse gas emissions in 2010**, and that this share could increase to 30% by 2050 if current trends continue.

○ One of the ways to reduce the environmental footprint of agriculture is to invest in low-carbon and climate-smart technologies and practices in agriculture.

➢ **Dependence on Monsoons:** A study by the Indian Council for Research on International Economic Relations (ICRIER) found that a **1% deviation from normal rainfall reduced agricultural growth by 0.7% in India.**

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**Significance of Agriculture in India**

➢ It provides **employment opportunities to about 54.6%** of the total population.

➢ It contributes about **17% to the total GDP.**

➢ It supplies food for the large and growing population of India.

➢ It provides raw materials for various agro-based and food processing industries.

➢ It influences the internal and external trade and commerce of the country.

➢ It helps in capital formation and government revenue generation.

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○ To reduce the dependence on monsoons, capital investment is needed for developing irrigation systems, weather forecasting, and crop insurance.

## What are the Government Initiatives to Boost GCAF?

➢ Enhanced institutional credit to farmers through schemes like **Kisan Credit Card**, **Interest Subvention Scheme**, etc.

➢ Promotion of scientific warehousing infrastructure for increasing shelf life of agricultural produce through schemes like **Gramin Bhandaran Yojana, Warehousing Development and Regulatory Authority**, etc.

➢ Setting up of Agri-tech Infrastructure Fund for making farming competitive and profitable through schemes like **Pradhan Mantri Kisan Sampada Yojana**, **Agri-Market Infrastructure Fund**, etc.

➢ Developing commercial organic farming through schemes like **Paramparagat Krishi Vikas Yojana**, **Mission Organic Value Chain Development**, etc.

➢ Creating a start-up ecosystem in agriculture and allied sectors through schemes like **Rashtriya Krishi Vikas Yojana, Agri Udaan**, etc.

## What More Should be Done to Increase GCF in Agriculture?

➢ **Increasing public expenditure** on irrigation, research and development, extension services, market infrastructure, etc.

○ These can help improve the productivity and profitability of agriculture and create a conducive environment for private investment.

➢ **Promoting private sector participation** in agriculture through policy reforms, such as the **Model Agriculture Produce and Livestock Marketing Act,** the **Model Agriculture Produce and Livestock Contract Farming Act,** the **exemption of Farmer Producer Companies from income tax,** etc.

○ These can help create alternative marketing channels, facilitate contract farming, and encourage collective action by farmers.

➢ **Leveraging the potential of climate finance** to support the transformation towards climate resilient and low emission agriculture. This can be achieved through three interlinked pathways: **promoting resilient agriculture, facilitating climate informed advisory and risk management services, and reconfiguring food systems.**

○ The **Green Climate Fund (GCF)** is one of the sources of climate finance that can support developing countries in achieving these goals.

**Conclusion:**

India faces challenges in agricultural sustainability **due to the slowdown in Gross Capital Formation in Agriculture (GCFA)**. Shifts in public investment and changes in agricultural practices complicate the issue, affecting income distribution, job creation, and global competitiveness. **Collaborative and strategic measures are necessary** for a resilient, competitive, and sustainable future for India's crucial agricultural sector.

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# Solving India's Job Crisis

*This editorial is based on "India's jobs crisis, the macroeconomic reasons" which was published in The Hindu on 25/12/2023. The article discusses that India's jobs crisis is not only due to the pandemic, but also due to the macroeconomic policies of the government.*

Tag: GS Paper 3, Employment, Growth & Development, Education, Skill Development, Human Resource

India's jobs crisis is a serious and persistent problem that affects millions of young and educated people who are unable to find suitable employment in the formal economy. According to the **Centre for Monitoring Indian Economy (CMIE)**, an independent think tank, India's unemployment rate was more than 7% for most of 2021 and 2022, and reached 7.9% in December 2022. This is much higher than the global average and most of the emerging economies.

## What are the Types of Employment that Prevail in India?

There are **two types of employment** that prevail in an economy such as India:

➢ The first is **wage employment** which is a result of labour demanded by employers in their pursuit of profits. It can be further classified as:
   ○ **Regular Wage Jobs:** These are **formal, structured positions** where employees receive a fixed salary or wages on a regular basis.
      ● This includes jobs in government organisations, private companies, and multinational corporations.
   ○ **Casual or Daily Wage Labor:** Many workers in India are engaged in daily wage labour, especially in sectors like construction, agriculture, and unorganised labour markets.
      ● These jobs often lack job security and come with variable income.

➢ The second is **self-employment** where labour supply and labour demand are identical, i.e., the worker employs him/herself. It can be further divided into:
   ○ **Entrepreneurship:** Many individuals in India are engaged in entrepreneurial activities, running small businesses or enterprises.
      ● This could include small shops, local services, or manufacturing units.
   ○ **Farmers:** Agriculture is a significant source of self-employment in India. Many individuals own and operate their farms, either independently or as part of a family-run enterprise.
   ○ **Freelancing and Informal Work:** With the rise of the **gig economy**, freelancing and informal work arrangements have become more common.
      ● This includes individuals working as freelancers, consultants, or in part-time roles.

## What are the Reasons behind Unemployment in India?

➢ **Stagnant Employment Growth Rate:** Over the last four decades, there has been a more or less **stagnant employment growth rate of salaried workers** in the non-agricultural sector.
   ○ This indicates a lack of significant expansion in formal employment opportunities.

➢ **Disguised Unemployment:** The Indian economy has had open unemployment (job-seekers without work) and high levels of informal employment, including self-employed and casual wage workers.
   ○ The latter is known as "**disguised unemployment**" because it resembles open unemployment and reflects a shortage of suitable job opportunities in the formal sector.

➢ **Labour Demand Determinants:** The demand for labour in the formal non-agricultural sector depends on two key factors.
   ○ Firstly, it is influenced by the amount of output that firms are able to sell. If demand for output is low, **firms are less likely to hire additional workers**.
   ○ Secondly, the level of technology plays a role, as the introduction of labour-saving technologies allows firms to produce the same amount of output with fewer workers.
      ● While this increases efficiency, it can **lead to a decrease in the number of jobs available in the formal sector**.

➢ **Policy Focus on Output Growth:** Economic policies in India have traditionally been framed in terms of

output growth (GDP or value-added), which may not necessarily address the employment generation challenge.

- ○ **Policies solely focused on output growth may not result in a corresponding increase in employment opportunities**, especially if labour productivity growth rate rises.

➤ **Lack of Responsiveness of Employment Growth Rate:** In India, the employment growth rate of the formal and non-agricultural sector remained unresponsive despite a significant rise in the GDP growth rate and the value added growth rate during the 2000s as compared to the decade of the 1980s and 1990s.

- ○ The **lack of responsiveness of employment growth rate to changes in output growth rate reflects a phenomenon of jobless growth**. It indicates a strong connection between labour productivity growth rate and output growth rate.

## *What is the Jobless Growth in India's Case?*

➤ As an economy grows, it is generally seen that it also becomes more productive. That is, in the process of producing a greater amount of total output, firms become capable of producing more output per worker. This happens because of what economists call "economies of scale".

- ○ As firms produce more output, they find it easier to adopt labour-saving technologies. But the extent to which labour-saving technologies are introduced depends on the bargaining power of labour.

➤ There are two **types of jobless growth** regimes based on the tightness of the connection between output growth and labour productivity growth.

- ○ **Weak Responsiveness of Employment to GDP Growth:** The possibility of jobless growth in this case emerges exclusively on account of automation and the introduction of labour-saving technology.
  - But employment growth rate in such countries would necessarily increase if output growth rate happens to increase.
  - Under **weak responsiveness of labour productivity, the positive effect of GDP growth rate on employment would dominate** over the adverse effect of labour-saving technologies.
  - Here, the solution to the jobs crisis is just more rapid economic growth.

- ○ **High Responsiveness of Employment to GDP Growth:** In India's case, the **responsiveness of labour productivity growth rate to output growth rate is high.**

- Here, the positive effect of output growth rate on employment fails to counteract the adverse effect of labour-saving technologies.
- Employment growth rate in such countries cannot be increased simply by increasing GDP growth rate.

- ○ **Kaldor-Verdoorn Coefficient:** The Kaldor-Verdoorn coefficient **measures the extent to which labour productivity growth** responds to output growth.
  - A higher coefficient indicates a stronger relationship between the two.
  - The assertion that **India's non-agricultural sector has a higher Kaldor-Verdoorn coefficient** compared to other developing countries implies that the country experiences a more pronounced form of jobless growth.

**Macroeconomic Policy Frameworks:**

➤ **The Keynesian Theory:** The central contribution of the Keynesian revolution in macroeconomics was to highlight the role of aggregate demand as the binding constraint on employment.

- ○ **Fiscal policy** was perceived to increase labour demand by stimulating output. The developing countries that inherited a dual economy structure during their independence, confronted additional constraints on output.

➤ **The Mahalanobis Strategy:** This identified the availability of capital goods as the binding constraint on output and employment, putting forward the policy for heavy industrialisation.

➤ **Structuralist Theories:** The structuralist theories based on the experiences of developing countries highlighted the possibility of agrarian constraint and the balance of payment constraints.

- ○ Both these constraints led to key policy debates in India, particularly during the decade of the 1970s and early 1990s.

➤ Nonetheless, what remained common to all these different frameworks was the presumption that increasing the output growth rate in the non-agricultural sector would be a sufficient condition for increasing the employment growth rate in the formal sector.

- ○ But the employment challenge can no longer be met only through more rapid GDP growth.

## *What should be Done to Address Unemployment in India?*

➤ **Implement a National Employment Policy (NEP):** The evidence suggests that the **employment challenge can no longer be met only through more**

**rapid GDP growth.** Rather, a separate policy focus is needed on employment in addition to the focus on GDP growth.

○ Such employment policies will need both demand side and supply side components.

○ For example, to the extent firms in India find it easier to automate due to a lack of public provisioning of education and health of adequate skilled labour, increasing the quality of the workforce through better care, as well as bridging the skills gap, are important.

○ On the demand side, direct public job creation will be needed.

➢ **Introducing an Urban Version of MGNREGA:** It can provide a safety net and a source of income for the urban poor. The scheme can be implemented for the urban poor who are often engaged in informal and precarious jobs. This can provide them with a minimum level of income security and also create public assets and services in the urban areas.

○ Rajasthan has recently introduced an **urban variant of the MGNREGA**.

➢ **Increase Industrialization and Investment in Agriculture:** It can create more jobs and boost productivity. One of the most sure-shot remedies of the unemployment situation in India is rapid industrialization.

○ Increased number of industries translates effectively into an increased number of employment opportunities.

○ Moreover, investment or capital formation in agriculture can also generate employment directly and indirectly through multiplier effects.

➢ **Diversifying Agriculture and Promoting Agro-Processing Industries:** It can enhance rural income and employment opportunities. There is an **urgent need for a relative shift from growing of crops to horticulture, vegetable production, floriculture, animal husbandry, fisheries etc.** which are more labour absorbing and higher income-yielding.

○ In addition to this, **promotion of agro-processing industries** for export purposes has a large employment potential.

○ These industries can also reduce the wastage of agricultural produce and increase the value addition.

➢ **Expanding Education and Health Care:** It can improve human capital and generate employment in the social sector. The expansion of education and health care not only promotes accumulation of human capital and thereby contributes to growth of output, it will also generate a good deal of employment opportunities.

○ Reforming the education system and providing vocational and technical training will enhance the skills and employability of the workforce.

● Vocational and technical training can **help the students acquire the skills and knowledge required** for specific occupations and industries.

● This can **reduce the mismatch between the demand and supply of skilled labour** and improve the productivity and competitiveness of the economy.

➢ **Developing the Rural Areas and Decentralising Development:** It can reduce the migration pressure on urban areas and create more balanced growth.

○ Development of the rural areas can help mitigate the migration of the rural people to the urban areas thus decreasing the pressure on the urban area jobs.

○ Decentralised development can also **ensure that the benefits of growth are shared more equitably** among different regions and sectors.

○ This can also foster local participation and empowerment of the people.

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# India's Cybersecurity Challenge: Threats and Strategies

*This editorial is based on "We want a Digital India. Just not the one we are living in" which was published in The Indian Express on 26/12/2023. The article discusses the challenges and opportunities for India in the domain of cyber security, and argues that India needs a new approach that is based on self-reliance, innovation, and collaboration.*

**Tag**: GS Paper - 2, Government Policies & Interventions, GS Paper - 3, Cyber Security, Cyber Warfare, Challenges to Internal Security Through Communication Networks

As the world is advancing in the realm of digitalisation, the threat of cyber attacks has also grown and India is no exception to it. In October, 2023, Resecurity, a US company, informed the world about the availability of Indians' personal data on the dark web. It would have been easy to ignore this amid the deluge of bad news filling our news feeds but for the size and sensitivity of data. The seller of the data set was providing verifiable, sensitive information of 55% of the Indian population — roughly around 815 million ( 81.5 crore) citizens.

This included personally identifiable information like name, phone number, Aadhaar number, passport number and address. All for a paltry sum of USD80,000. On December 18, Delhi police had arrested four individuals in this matter.

### How Vulnerable is India to Cyber Attacks?

➢ India has a large and growing population of internet users, with **more than 52% of the population or 759 million people** accessing the internet at least once a month in 2022
  ○ India is the **second largest online market** in the world, behind China.
  ○ By 2025, the number is **expected to grow to 900 million**.

➢ India has a rapidly expanding digital economy, with sectors such as healthcare, education, finance, retail, and agriculture relying on online platforms and services.
  ○ However, India's outdated or inadequate cyber security infrastructure, policies, and awareness, making it easy for hackers to exploit the gaps and weaknesses in the system that's why India faces sophisticated and persistent cyber threats from state-sponsored and non-state actors, who target India's strategic, economic, and national interests.

### What are the Challenges Posed by Cyber Attacks on India?

➢ **Critical Infrastructure Vulnerability:** India's critical infrastructure, such as power grids, transportation systems, and communication networks, is vulnerable to cyber attacks that can disrupt essential services and endanger public safety and national security.
  ○ For example, in October 2019, there was an attempted cyber-attack on the **Kudankulam Nuclear power plant**.

➢ **Financial Sector Threats:** The financial sector in India faces a high risk of cyberattacks from cybercriminals who seek to profit from stealing or extorting money. Attacks on banks, financial institutions, and online payment systems can cause financial losses, identity theft, and a loss of trust in the financial system.
  ○ For instance, in March 2020, a malware attack on the City Union Bank's **SWIFT system** led to unauthorised transactions worth USD 2 million.

➢ **Data Breaches and Privacy Concerns:** As India moves towards a digital economy, the amount of personal and government data stored online increases. This also increases the risk of data breaches, where hackers access and leak sensitive information. Data breaches can have serious consequences for the privacy and security of individuals and organisations.
  ○ For example, in May 2021, the personally identifiable information (PII) and test results of 190,000 candidates for the 2020 Common Admission Test (CAT), used to select applicants to the IIMs, were leaked and put up for sale on a cybercrime forum.

➢ **Cyber Espionage:** Cyber espionage is the use of cyber attacks to spy on or sabotage the interests of other countries or entities. India, like other countries, is a target for cyber espionage activities that aim to steal confidential information and gain a strategic edge. Cyber espionage can affect India's national security, foreign policy, and economic development.
  ○ For example, in 2020, a cyber espionage campaign called Operation SideCopy (a Pakistani threat actor) was uncovered, which targeted Indian military and diplomatic personnel with malware and phishing emails.

➢ **Advanced Persistent Threats (APTs):** APTs are complex and prolonged cyber attacks, usually carried out by well-resourced and skilled groups. These attacks are designed to infiltrate and remain hidden in the target's network for a long time, allowing them to steal or manipulate data, or cause damage.
  ○ APTs are difficult to detect and counter, as they use advanced techniques and tools to evade security measures.
  ○ For example, in February 2021, a cyber security firm called RedEcho revealed that a China-linked APT group had targeted 10 entities in India's power sector, with malware that could potentially cause power outages.

➢ **Supply Chain Vulnerabilities:** Supply chain vulnerabilities refer to the weaknesses in the software or hardware components that are used by government and businesses for their operations. Cyber attackers can exploit these vulnerabilities to compromise the systems and services that depend on these components, and cause widespread damage.
  ○ For example, in December 2020, a global cyberattack on SolarWinds, a US-based software company that provides network management tools, affected several Indian organisations, including the **National Informatics Centre (NIC)**, the Ministry of Electronics and Information Technology (MeitY), and Bharat Heavy Electricals Limited (BHEL).

### What are the Initiatives Regarding Cyber Security?

➢ **National Cyber Security Policy:** This policy aims to build a secure and resilient cyberspace for citizens,

businesses, and the government. It outlines various objectives and strategies to protect cyberspace information and infrastructure, build capabilities to prevent and respond to cyber attacks, and minimise damages through coordinated efforts of institutional structures, people, processes, and technology.

➢ **Cyber Surakshit Bharat Initiative:** This initiative was launched to raise awareness about cyber crimes and create safety measures for Chief Information Security Officers (CISOs) and frontline IT staff across all government departments.

➢ **Indian Cyber Crime Coordination Centre (I4C):** This centre was established to provide a framework and eco-system for law enforcement agencies to deal with cyber crimes in a comprehensive and coordinated manner. It has seven components, namely:

  ○ National Cyber Crime Threat Analytics Unit

  ○ National Cyber Crime Reporting Portal

  ○ National Cyber Crime Training Centre

  ○ Cyber Crime Ecosystem Management Unit

  ○ National Cyber Crime Research and Innovation Centre National Cyber Crime Forensic Laboratory Ecosystem

  ○ Platform for Joint Cyber Crime Investigation Team.

➢ **Cyber Swachhta Kendra (Botnet Cleaning and Malware Analysis Centre):** This centre was launched in 2017 to create a secure cyberspace by detecting botnet infections in India and notifying, enabling cleaning and securing systems of end users to prevent further infections.

➢ **Computer Emergency Response Team - India (CERT-In):** It is an organisation of the MeitY which collects, analyses and disseminates information on cyber incidents, and also issues alerts on cybersecurity incidents.

➢ **Critical information infrastructure (CII):** It is defined as a computer resource, the destruction of which, shall have debilitating impact on national security, economy, public health or safety.

  ○ The government has established the **National Critical Information Infrastructure Protection Centre (NCIIPC)** to protect the CII of various sectors, such as power, banking, telecom, transport, government, and strategic enterprises.

➢ **Defence Cyber Agency (DCyA):** The **DCyA** is a tri-service command of the Indian Armed Forces that is responsible for handling cyber security threats. It has the capability to conduct cyber operations, such as hacking, surveillance, data recovery, encryption, and countermeasures, against various cyber threat actors.

## *What Should India Do Further to Save Itself from Cyber attacks?*

➢ **Strengthening Existing legal Framework:** India's primary legislation governing cyber crimes is the **Information Technology (IT) Act of 2000**, which has been amended several times to address new challenges and threats.

  ○ However, the IT Act still has some gaps and limitations, such as the lack of clear definitions, procedures, and penalties for various cyber offences, and the low conviction rate of cyber criminals.

  ○ India needs to enact comprehensive and updated laws that cover all aspects of cyber security, such as cyber terrorism, cyber warfare, cyber espionage, and cyber fraud.

➢ **Enhancing Cyber Security Capabilities:** India has several initiatives and policies to improve its cyber security, such as the National Cyber Security Policy, the Cyber Cells and Cybercrime Investigation Units, the Cyber Crime Reporting Platforms, and the Capacity Building and Training programs.

  ○ However, these efforts are still inadequate and fragmented, as India faces a shortage of technical staff, cyber forensics facilities, cyber security standards, and coordination among various stakeholders.

  ○ India needs to invest more in developing its human and technological resources, establishing cyber security centers of excellence, adopting best practices and standards, and fostering collaboration and information sharing among different agencies and sectors.

➢ **Establish a Cyber Security Board:** India must establish a cyber security board with government and private sector participants that has the authority to convene, following a significant cyber incident, to analyse what happened and make concrete recommendations for improving cybersecurity.

  ○ Adopt a zero-trust architecture, and mandate a standardised playbook for responding to cybersecurity vulnerabilities and incidents. Urgently execute a plan for defending and modernising state networks and updating its incident response policy.

➢ **Expanding International Cooperation:** India is not alone in facing the challenges of cyber security, as cyber attacks transcend national boundaries and affect the global community.

  ○ India needs to engage more with other countries and international organisations, such as the

United Nations, the International Telecommunication Union, the Interpol, and the Global Forum on Cyber Expertise, to exchange best practices, share threat intelligence, harmonise cyber laws and norms, and cooperate in cyber investigations and prosecutions.

○ India also needs to participate more actively in regional and bilateral dialogues and initiatives, such as the ASEAN Regional Forum, the BRICS, and bilateral forums it has like Indo-US Cyber Security Forum, to build trust and confidence, and to address common cyber security issues and interests.

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# Assessing Make in India: Achievements and Challenges

*This editorial is based on "There is no substitute for an industrial policy" which was published in The Indian Express on 27/12/2023. The article discusses the Make in India policy and its drawbacks. It also discusses that there is a need of Industrial Policy to create jobs which is an unachieved goal of MII.*

**Tag**: GS Paper - 3, Industrial Growth, Industrial Policy

The **Make in India initiative**, launched in 2014, represents a departure from India's previous policy of self-sufficiency in the 1970s. Unlike the old approach, Make in India does not evoke memories of the licence raj, self-sufficiency, or import-substituting industrialization. It is significantly different, although concerns have been raised about the implementation of Make in India in certain sectors.

## What is the Make in India Policy?

➢ **The Policy:**
○ The Make in India initiative is a flagship program launched by the Indian government in 2014 **to boost domestic manufacturing and transform India** into a global manufacturing hub.
○ The campaign was launched to **facilitate investment, foster innovation, enhance skill development, protect intellectual property** & build best in class manufacturing infrastructure.

➢ **Objectives:**
○ Increase the growth rate of the manufacturing sector to **12-14% per annum.**

○ Create **100 million additional manufacturing jobs** by 2022 (revised to 2025).
○ Increase the manufacturing sector's contribution to **GDP to 25% by 2025**.

➢ **Strategies:**
○ **Streamlining Business Processes:** Reducing bureaucratic hurdles and simplifying regulations to make it easier for companies to do business in India.
○ **Developing Infrastructure:** Upgrading ports, roads, railways, and power generation to provide reliable and efficient infrastructure for industries.
○ **Skilling the Workforce:** Investing in skill development programs to create a pool of skilled labour for the manufacturing sector.
○ **Incentivizing Investments:** Offering tax breaks, subsidies, and other incentives to attract foreign and domestic investment in manufacturing.
○ **Focusing on Key Sectors:** Targeting specific sectors for development, such as automobiles, aerospace, defence, electronics, and pharmaceuticals.

➢ **Derivatives:** MII has at least two other derivatives: Made in India and Make for India.
○ **Made in India** refers to a product that is assembled or produced in India, even if the parts were manufactured abroad.
● It is basically a branding strategy to promote manufacturers born out of Indian **factors of production** — land, labour, capital, entrepreneurship, technology, etc.
○ **Make for India** involves production for consumption in India itself and focuses on manufacturing for the domestic market.

## What was the Rationale behind the Introduction of MII?

➢ MII was launched in 2014 as a sequel to earlier initiatives designed to create a robust and competitive manufacturing sector such as (**NIP 2011**, Liberalisation of Economy etc.).
➢ The Indian manufacturing sector's growth was constrained by factors such as inadequate physical infrastructure, a complex and (corrupt) regulatory environment, and inadequate availability of skilled manpower.
➢ MII was launched to raise the contribution of manufacturing in GDP from the stagnant 15% since the beginning of the 1980s to at least 25% and to create 100 million additional jobs.
○ That it did not succeed is to state the obvious.

➢ In addition to the dynamic objectives of National Manufacturing Policy (NMP) 2011, it was aimed "to transform India into a global design and manufacturing export hub". In other words, MII for the world.

### What are the Success and Failures of MII?

➢ **Successes:**
   ❍ India improved its ranking in the **World Bank's Ease of Doing Business Index**, from 142nd in 2014 to 63rd in 2020.
   ❍ India opened up various sectors to private and foreign investment, such as defence, railways, civil aviation, etc.
   ❍ India witnessed growth in some sectors, such as automobiles, electronics, renewable energy, textiles, etc.
   ❍ India became a leader in mobile phone manufacturing, with over 200 units producing more than 225 million handsets in 2017-18.

➢ **Failures:**
   ❍ India failed to create an international niche market for its products and services.
   ❍ India did not achieve its targets of increasing the manufacturing sector's share in GDP to 25% by 2025, creating 100 million additional jobs, and boosting manufacturing growth to 12-14% per annum.
   ❍ India faced challenges such as policy paralysis, lack of competitive advantage, investment crunch, trade protectionism, infrastructure bottlenecks, labour issues, etc.

### Why did MII Fail to Achieve its Objectives?

➢ As a part of MII, the **production-linked incentive (PLI) scheme** was introduced with a purpose to attract investments in key sectors and cutting-edge technology; ensure efficiency and bring economies of size and scale in the manufacturing sector and make Indian companies and manufacturers globally competitive.
   ❍ The additional goals are like the icing on the cake, but the primary goal of creating jobs for our abundant workforce, particularly women, has not been accomplished.
      ● This can only be **achieved through labour-intensive manufacturing**. China's example suggests the influence of scale in manufacturing for more and more jobs.

### Can the MSMEs solve the Jobs Conundrum?

➢ India's labour market research points towards the presence of low-paying, subdued productivity, and mostly informal jobs in the unorganised sector.

➢ Over 99% of India's 63 million **micro, small and medium enterprises (MSMEs)** are in the unorganised sector with very little flexibility for productive job creation.
   ❍ Their hand-to-mouth existence is not a recipe for jobs or scale.

### So, What needs to be done for Job Creation?

➢ **A well articulated National Industrial Policy** over and above PLI is needed for sectors such as toys, readymade garments and footwear, etc.
   ❍ PLI is good for high-end manufacturing, but industrial policy is the best bet for mass job creation.

➢ Industrial policy in a labour abundant country with average educational achievements and skills is necessary to shape productive job creation for the abundant factor.

### How can National Industrial Policy help in Job Creation?

➢ **Providing incentives and support** for the existing and new industries to expand their production, exports, and innovation. This can increase the demand for labour and skills in the industrial sector and generate more employment opportunities.

➢ **Developing infrastructure and connectivity,** such as roads, ports, power, and digital networks, that can facilitate the movement of goods, services, and people. This can improve the efficiency and competitiveness of the industries and create more jobs in the construction and maintenance sectors.

➢ **Enhancing the skills and capabilities of the workforce,** through education, training, and lifelong learning programs, that can match the needs and demands of the industries. This can improve the productivity and quality of the labour force and create more jobs in the knowledge-based and high-value sectors.

➢ **Promoting entrepreneurship and innovation,** through policies and programs that encourage the creation and growth of startups, small and medium enterprises, and social enterprises. This can foster a culture of innovation and creativity and create more jobs in the emerging and dynamic sectors.

➢ **Aligning the industrial policy with the social and environmental goals,** such as poverty reduction, gender equality, and climate change mitigation. This can ensure that industrial development is inclusive, sustainable, and responsible and creates more jobs in the green and social sectors.

**Conclusion:**

A National Industrial Policy is necessary to facilitate the creation of productive employment opportunities for India's abundant labour force. However, the government has put the new industrial policy (NIP '23), which has been in the making for over two years, on hold.

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# Plough to Plate: Natural Farming Unleashed

*This editorial is based on "Natural farming needs better prices, markets" which was published in The Hindu business line on 27/12/2023. The article discusses the challenges faced by Natural farming and the need of exploring alternative markets to promote natural farming.*

**Tag**: GS Paper - 1, Agricultural Resources, GS Paper - 2, Government Policies & Interventions, GS Paper - 3, Cropping Patterns

We are self-sufficient in agriculture produce, thanks to the **Green Revolution**. But the negative environmental impacts in green revolution regions are all too visible — soil degradation, biodiversity loss, natural resources depletion, among others. One of the sustainable agriculture practice that is now gaining momentum is **natural farming (NF)** which is 'agriculture as per local ecology and hence also called as **agroecology**'.

## What is Natural Farming?

➢ **The Concept:** Natural farming is a **chemical-free farming method** that uses locally available resources and traditional practices. It's based on **agroecology** and integrates crops, trees, and livestock.

○ Natural farming also **uses beneficial microorganisms** to improve soil quality and health.

## COMPONENTS OF NATURAL FARMING

**Beejamrit**

The process includes treatment of seed using cow dung, urine and lime based formulations.

**Whapasa**

The process involves activating earthworms in the soil in order to create water vapor condensation.

**Jivamrit**

The process enhances the fertility of soil using cow urine, dung, flour of pulses and jaggery concotion.

**Mulching**

The process involves creating micro climate using different mulches with trees, crop biomass to conserve soil moisture.

**Plant Protection**

The process involves spraying of biological concoctions which prevents pest, disease and weed problems and protects the plant and improves their soil fertility.

**Natural Farming vs Organic Farming**

Organic Farming: **Organic farming** is a farming system that uses traditional methods to grow crops and raise animals without synthetic inputs. This includes avoiding synthetic fertilisers, pesticides, antibiotics, genetically modified organisms, and growth hormones.

**How is it different from Natural Farming?**

➢ Natural farming emphasises **minimal human intervention** and ecosystem mimicry, while organic farming focuses on using organic inputs and adheres to specific standards.

➢ Natural farming **prohibits the use of any imported fertilisers** or soil amendments, while organic farming **allows the use of compost, mineral rocks, and fertilisers** from plant or animal sources.

➢ Natural farming **relies on ecological principles to promote biodiversity**, preserve soil health, support plant and animal health, and improve crop yields, while organic farming uses **organic materials and techniques to optimise the productivity** and ecological vitality of agricultural ecosystems.

➢ Natural farming **discourages the use of any chemicals**, while organic farming has a list of **approved chemicals considered safe** for humans and the environment.

➢ Natural farming is based on a philosophical **approach that reflects the wisdom of nature** itself, while organic farming is a holistic agricultural system that is meticulously designed and regulated.

## *What are the Benefits of Natural Farming?*

➢ **Environmental Benefits:**

❍ **Healthy Soil:** Natural farming techniques like **composting and mulching enhance soil fertility** by promoting beneficial microorganisms and organic matter. This leads to improved water retention, increased nutrient availability, and better crop yields.

❍ **Water Conservation:** Natural methods like mulching and **drip irrigation** help retain moisture **in the soil,** reducing the need for excessive water usage. This is crucial for sustainable water management and combating drought conditions.

❍ **Reduced Pollution:** By substituting chemical fertilisers and pesticides with natural alternatives, natural farming significantly **reduces the pollution of soil, water bodies, and the atmosphere**. This protects ecosystems and human health from harmful chemicals.

❍ **Climate Change Mitigation:** Natural farming practices generally have a **lower carbon footprint** compared to conventional agriculture. Additionally, healthy soil acts as a **carbon sink**, capturing **greenhouse gases** and contributing to **climate change** mitigation.

➢ **Farmer Benefits:**

❍ **Reduced Costs:** Natural farming relies on locally available resources and on-farm inputs, like compost and **bio-pesticides**, leading to **lower dependence on expensive external inputs like chemical fertilisers and pesticides**. This reduces the overall cost of production and improves farmer profitability.

❍ **Improved Farm Resilience:** Natural farming techniques make farms more **resilient to extreme weather events like droughts** and floods by promoting soil health and biodiversity. This leads to greater stability and reduces risks for farmers.

❍ **Enhanced Farmer Health:** By eliminating exposure to harmful chemicals, natural farming protects farmers' health and well-being.

➢ **Consumer Benefits:**

❍ **Safer Food:** Natural farming produces **food free from harmful chemical residues**, leading to safer and healthier consumption for consumers.

❍ **Improved Food Quality:** Studies suggest that **naturally grown food can have higher levels of antioxidants and other beneficial nutrients**, potentially leading to improved health outcomes for consumers.

❍ **Support for Sustainable Agriculture:** Consumers who choose natural food products indirectly **support a more sustainable and ethical agricultural system** that benefits the environment and farmers.

## *What are the Challenges Related to Natural Farming?*

➢ **Limited market:** Farmers who have been practising NF **do not get premium prices for their products**, as differentiated markets, standards and protocols don't exist sufficiently. Many farmers confess that NF products are largely for home consumption.

❍ Moreover, there is a **lack of certification and standardisation for natural farming**, which makes it hard to distinguish from organic or conventional farming.

➢ **Lower Initial Yields:** Natural farming relies on building healthy soil ecosystems, which takes time. This often

translates to **lower yields in the initial years compared to conventional methods** that rely on chemical inputs for quick boosts.

○ In Andhra Pradesh, a study by the Centre for Sustainable Agriculture found that paddy yields in natural farms were 20% lower than conventional farms in the first year, gradually improving to match conventional yields within three years.

➢ **Lack of Awareness and Training:** Many farmers lack knowledge and practical skills in natural farming techniques, making them hesitant to switch. Limited access to training programs and extension services further exacerbates the problem.

○ In Himachal Pradesh, despite government initiatives to promote natural farming, many farmers remain unaware of the specific practices and benefits, hindering wider adoption.

➢ **Availability and Affordability of Organic Inputs:** The high cost of organic cotton seeds discourages farmers from adopting natural cotton cultivation, despite the long-term benefits for soil health and market demand.

➢ **Pest and Disease Management:** Natural farming relies on ecological methods for pest and disease control, which can be less effective than chemical pesticides in the short term. This requires farmers to be more vigilant and adopt preventative measures.

○ For Example, Apple growers in Jammu and Kashmir face challenges in managing codling moth infestations using natural methods, leading to some reverting to chemical pesticides.

## *What Measures Should be Taken to Promote Natural Farming?*

➢ **Developing Alternative and Differentiated Markets:** The government should explore alternate markets, if we have to transit to NF. Here are some ideas on expanding alternative markets for the NF:

○ **Public Distribution System (PDS):**

● Integrating NF produce into the **PDS** can not only provide a stable market for farmers but also ensure the availability of healthy and chemical-free food to a wider population.

○ **Utilise the Existing Mechanisms:**

● The existing networks of **Primary Agricultural Cooperative Societies** and Marketing Federations may also be included.

● Collaborating with **Farmer Producer Organizations (FPOs)** can enhance the efficiency of production, procurement, and distribution.

○ **Mid-day Meal Programme:**

● The **mid-day meal program** can become a new market by shifting from importing food to using local decentralised systems. This involves local production, procurement, storage, and distribution using produce from nearby areas, with the participation of FPOs.

➢ Local crops for local requirements must be the mantra.

○ **Dedicated Haats:**

● There are about 43,000 village haats (markets), a chain of farmers' markets in Andhra Pradesh, Telangana and Tamil Nadu.

● A few of them, can be dedicated to certified NF produce and backward integration developed.

○ **Establish Consumer Cooperatives:**

● Consumer Cooperatives can also be established in urban/peri-urban areas of major cities where farmland is within 100 km radius.

● Tirumala Tirupati Devasthanams (TTD) in 2022, made arrangements with 5,000 Self-Help Groups to source the pesticide-free produce for making offerings to the deities (laddu prasadam and anna prasadam).

➢ **Effective implementation of Certification:** To establish a common understanding among stakeholders the government introduced the **Participatory Guarantee System (PGS-India)** and Himachal Pradesh developed a self-certification tool (CETARA-NF) for natural farming to ensure quality without third-party certification. The **Bureau of Indian Standards** drafted requirements for natural farming (NF) and labelling NF produce, distinguishing it from organic farming.

○ Incentives and recognition for adhering to standards, stakeholder collaboration, and policy support are essential for effective implementation at the field and market levels.

➢ **Develop Awareness:** Developing awareness amongst farmers and consumers is required. Both these are not easy tasks, as food/agriculture is a powerful habit, if not a culture.

○ Some estimates indicate that this niche market is growing at about 20-25%, despite consumers not being sure how genuine the label/product is!

● If we could bring in reliability, our food systems can gradually change for the better.

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# Redefining Viksit Bharat

*This editorial is based on "The quest for 'happiness' in the Viksit Bharat odyssey" which was published in The Hindu on 28/12/2023. The article discusses the concept of happiness induced model of growth and argues that mere achieving economic development is not a true meaning of development.*

**Tag**: GS Paper - 3, Growth & Development, GS Paper - 2, Government Policies & Interventions

The formal launch of Viksit Bharat marks a significant milestone. The prospect of elevating India to the status of a **developed nation by 2047**, the 100th year of its Independence, is truly captivating. Given the rapid progress of the country, this ambitious goal seems within reach. This moment also provides an opportunity to evaluate the concept of intended development. The selection of development priorities and focus is both intricate and critical.

In Viksit Bharat, there is an excessive emphasis on economic development. However, post-developmentalists argue that this approach reflects a Euro-centric view of development.

**Euro-centric View of Development:**
- The term "Euro-centric view of development" refers to an approach to understanding and measuring development that is centred around European or Western perspectives. This perspective has historically dominated the discourse on economic, social, and political development, often framing the experiences and achievements of European societies as the standard or ideal for progress.
- It is criticised because it uses traditional economic indicators such as **Gross Domestic Product (GDP)** and industrialisation as primary measures of development.

## What is Vision India@2047?

- **Vision India@2047** is a project initiated by the **NITI Aayog**, the apex policy think tank of India, to create a blueprint for India's development in the next 25 years.
- The project aims to make **India a global leader in innovation and technology,** a model of human development and social welfare, and a champion of environmental sustainability.

## What are the Aspects of Viksit Bharat?

- **Structural transformation:** This refers to the shift of resources from low-productivity sectors (such as agriculture) to high-productivity sectors (such as manufacturing and services). This can boost economic growth, create jobs, and reduce poverty.
- **Organising labour markets:** This involves improving the quality and quantity of labour supply, enhancing the skills and employability of workers, and ensuring fair and efficient labour regulations. This can increase labour productivity, reduce informality, and promote social protection.
- **Increasing competitiveness:** This entails enhancing the efficiency and innovation of firms, improving the quality and diversity of products and services, and expanding the domestic and international markets. This can foster economic dynamism, increase exports, and attract investments.
- **Improving financial and social inclusion:** This implies expanding the access and affordability of financial services and social welfare schemes for the poor and marginalised groups. This can improve their income, savings, and consumption, as well as their health, education, and empowerment.
- **Governance reforms:** This involves strengthening the institutions and processes of governance, such as the rule of law, accountability, transparency, and participation. This can improve the delivery of public goods and services, reduce corruption, and enhance trust and legitimacy.
- **Seizing opportunities in the Green Revolution:** This refers to adopting and promoting green technologies and practices, such as renewable energy, energy efficiency, and climate resilience. This can reduce greenhouse gas emissions, mitigate environmental degradation, and create new opportunities for growth and development.

## What are the Key Considerations for India's Development Beyond Economic Growth?

- Seeking to become the world's largest economy won't satisfy all of India's aspirations. While material development is important, it's just one of many goals for India by 2047.
- Critics question traditional economic growth models, challenging ideas about progress and modernity.
- It's time to rethink the concept of "Viksit Bharat" and consider other important aspects of development for India.

## What are the Other Aspects to be Considered?

- **Happiness ought to be the central pursuit in this journey.** Without achieving happiness, development has no meaning. Ironically, the nations have developed, but people are not happy.

○ Instead of 'Viksit Bharat', the theme ought to be **'Happy India-Developed India'** (Khushhal Bharat-Viksit Bharat).

➢ Rich nations are not essentially happy nations. Wealthy nations have only performed on GDP and per capita income but have failed miserably in the context of social and psychological well-being indicators.

○ This development scheme conveniently overlooks mental health and wellness.

➢ The **World Happiness Report 2023** shows many developed nations have poor happiness markers.

○ Some nations have attained both in a balanced way.

○ Countries such as Finland, Denmark, Iceland and the Netherlands are the happiest countries. They achieved development not at the cost of social disruption.

● Instead, they have built up social connections and support systems.

➢ India's case is also crucial because it is **ranked 126 out of 137 countries** despite being the fifth-largest economy.

○ Development and the Viksit Bharat agenda will remain a dream if we fail to imagine how to rise in the happiness index.

## *What is the Significance of Happiness-Induced Development Model for India?*

➢ A happiness-induced development model for India is highly pertinent as we are **significantly governed by social relationships** and cultural mandates.

➢ On the contrary, the **current model of mere economic development is highly disruptive** to our social order.

○ This form of development leads to disorders and crime. **All aspects of life in this development cycle do not change simultaneously**, creating imbalances and contradictions.

○ Such things are visible in our society, where industrial and economic developments are changing alarmingly, but quality aspects of life continue to lag.

➢ Happiness measures have already become the goals of public policy in many countries. Happiness is no longer a subjective matter.

## *How to Incorporate Happiness Induced Model of Development with Growth?*

➢ **Integration of Human Development Index (HDI):** Assign weightage to the **Human Development Index (HDI)**, which includes life expectancy, educational attainment, and income level. This provides a more comprehensive measure of well-being beyond traditional economic indicators.

➢ **Inclusion of Social Development Index (SDI):** Incorporate the UN Research Institute for Social Development's **Social Development Index**, which comprises 16 core indicators. This can offer insights into various social aspects, contributing to a holistic understanding of development.

➢ **Adoption of Green Index:** Utilise the **World Bank's Green Index**, which evaluates a nation's wealth based on produced assets, natural resources, and human resources. This aligns with **sustainable development goals**, reflecting a balance between economic progress and environmental responsibility.

➢ **Consideration of International Human Suffering Index:** Integrate the **International Human Suffering Index** to gauge a country's well-being based on parameters related to human suffering. This provides a nuanced perspective on the overall quality of life.

➢ **Incorporate Diverse Indices:** Include a variety of indices such as the **Global Innovation Index**, Rule of Law Index, **Poverty Index**, **Corruption Perceptions Index**, **Gender Equality Index**, and **World Press Freedom Index**. Each of these indices addresses specific aspects of development and happiness, contributing to a more comprehensive evaluation.

➢ **Focus on Happiness and Well-being:** Establish a dedicated index or set of indicators that specifically measure happiness and well-being. This could include factors like mental health, social connections, and overall life satisfaction, aligning with the vision of a Happy India.

➢ **Regular Monitoring and Evaluation:** Implement a robust system for monitoring and evaluating the chosen indices regularly. This ensures that policies and interventions are aligned with the goal of fostering happiness and well-being in the long term.

➢ **Policy Alignment with Happiness Goals:** Align national policies and development strategies with the identified indices and goals related to happiness. This ensures that government initiatives contribute directly to the well-being of citizens.

➢ **Educational and Awareness Programs:** Implement educational programs and awareness campaigns to promote a cultural shift towards prioritising happiness and well-being. This can include initiatives to reduce stigma around mental health, promote work-life balance, and emphasise the importance of social connections.

*Conclusion:*

By adopting a holistic approach that values happiness and well-being alongside economic growth, India can aspire to achieve a more sustainable and fulfilling development trajectory.

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# India-Russia Ties: The Art of Diplomacy

*This editorial is based on " Net Zero Sum" which was published in The Indian Express on 29/12/2023. The article discusses the visit of India's foreign minister, Jaishankar, to Moscow which holds significant importance in strengthening India-Russia relations.*

> **Tag**: GS Paper - 2, Bilateral Groupings & Agreements, Groupings & Agreements Involving India and/or Affecting India's Interests, Effect of Policies and Politics of Countries on India's interest, International Treaties & Agreements.

The recent Moscow visit by India's Foreign Minister is of considerable significance in the framework of India-Russia relations, extending beyond the established special and privileged partnership. In the evolving global geopolitical landscape a high level of political engagement on international issues and bilateral matters is expected.

## *Why the Relationship Between India and Russia is Strategically Significant?*

➢ **Time-Tested Partners :**
  ○ **Collaboration since Cold War:** During the **Cold War**, the Soviet Union, as a superpower, held a key position in the partnership, while India, part of the "developing" nations and a leader in the **Non-Aligned Movement**, collaborated closely.
  ○ **The Indo-Soviet Friendship Treaty of 1971:** In the wake of the Indo-Pak war (1971) Russia supported India while the US and China supported Pakistan
  ○ **Declaration on the India-Russia Strategic Partnership**: In October 2000, India-Russia ties acquired a qualitatively new character with enhanced levels of cooperation in almost all areas of the bilateral relationship
  ○ **Special and Privileged Strategic Partnership**: During the visit of the Russian President to India in December 2010, the Strategic Partnership was elevated to the level of a "Special and Privileged Strategic Partnership".

➢ **Energy Security** :
  ○ Russia possesses one of the globe's largest reserves of natural gas. And, India has initiated a transition towards increased reliance on natural gas.
  ● India is actively engaged in importing hydrocarbons from the Russian Far East.
  ○ Russia is an important partner for India in the area of peaceful use of nuclear energy.
    ● The **Kudankulam Nuclear Power Plant (KKNPP)** is being built in Tamil Nadu with the technical assistance of Russia.

➢ **Economic Convergence:**
  ○ Russia is India's seventh-biggest trading partner.
  ○ The **bilateral trade has reached USD 45 billion** already surpassing the target of bilateral trade of USD 30 billion by 2025.
  ○ The two countries intend to increase **bilateral investment** to **USD 50 billion by 2025.**

➢ **Balancing Geopolitics :**
  ○ **Counterbalancing Chinese Aggression**: The Chinese aggression in the border areas of eastern Ladakh, brought **India-China relations** to an inflection point but also demonstrated that Russia can contribute to defusing tensions with China.
  ○ **Champions of multipolarism:** Both Russia and India support the concept of a multi-polar world. It suits a rising Russia which aspires to recover the 'great power status' and a rising India which aspires to a **permanent seat at the UNSC** and enhanced status in the global arena.
    ● Moscow has long supported India's desire to expand the circle of permanent members of the Security Council and to enter into the **Nuclear Suppliers Group** - which Beijing is blocking.

➢ **Enduring Defence Ties :**
  ○ It is guided by the **Agreement on the Programme for Military Technical Cooperation** signed between the two countries. Russia currently commands around 47 percent of total arms imports by India.
    ● However, historically it accounted for 65% of arms imported by India.
  ○ The overwhelming majority of India's armored force consists of **Russian tanks—the T-72 and T-90S**—and so does its fleet of ground-attack aircraft—variants of **MiG-21, Su-30, and MiG-29**.
  ○ The **BrahMos missile** of India has been developed jointly with Russia.
  ○ In October 2018, India signed a 5.43 billion USD deal with Russia for the **S-400 Triumf missile.**
  ○ Over half of India's conventional submarines are of Soviet design.

FIGURE 3
**Indian Arms Imports by Country, 1992–2021**



OTHER COUNTRIES 9%
UNITED KINGDOM 4%
UNITED STATES 7%
FRANCE 7%
ISRAEL 7%
RUSSIA 65%
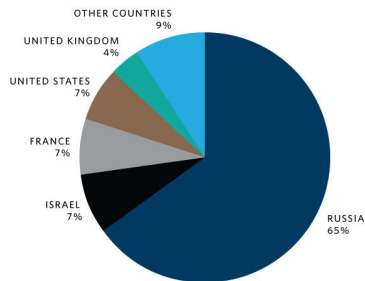
Source: SIPRI Arms Transfer Database, accessed July 27, 2022.

## *What are the Key Issues in India-Russia Relationship?*

➢ **Strategic Crossroads for Russia**:
  ○ **Russia's Closer Ties with China :**
    ● For **Russia**, with its long border with **China** and adversarial relations with the West, avoiding a two-front confrontation is a key imperative.
    ● As **Russia** and **China** enhance their **military cooperation**, engage in **joint economic initiatives**, and align on various **diplomatic fronts**, it introduces a geopolitical dynamic that may impact India's traditional strategic considerations.
  ○ **Increasing Proximity with Pakistan :**
    ● In recent years, Russia has tried to improve its relationship with Pakistan. It might be a response to the **US-India relationship**.
➢ **Diplomatic Dilemma for India :**
  ○ **Security Engagement with the United States**:
    ● India has now signed all four **foundational agreements** with the USA. India has bought USD 20 billion worth of arms over the last two decades
    ● India's great power calculations create the dilemma to choose between "**comprehensive global strategic partnership**" with the US on one hand, and its "**special and privileged partnership**" with Russia on the other .
  ○ **Ukraine Crisis** :
    ● The invasion of Ukraine by Russia has resulted in a global imposition of sanctions as Russia's actions are widely perceived as a violation of the territorial integrity of a sovereign nation and a breach of international law.
    ● However, **India faced significant criticism** in the West **for refraining from condemning the**

**Russian invasion** of Ukraine and for its continued expansion of energy and economic cooperation with Moscow.

➢ **Declining Economic Engagement :**
  ○ **Declining Defense Imports:** There has been a **gradual decline** in the orders of India from Russia because of its desire to diversify its defense imports and therefore a heightened competition for Russia with other suppliers.
  ○ **Poor Post-Sale Services**: Dissatisfaction in India with post-sales services and maintenance being offered by Russia.

FIGURE 5
**Indian Imports From Russia, China, and the United States, 1992–2019**



CHINA
UNITED STATES
RUSSIA

IMPORTS (MILLIONS OF US DOLLARS)
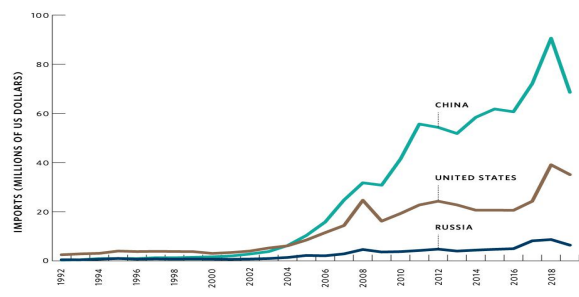
SOURCE: World Integrated Trade Solution database, World Bank.

## *What Should the Way Forward?*

➢ **Balancing the Defense Dynamics :**
  ○ **Enhance Defense Collaboration**: Continue the strategic defense partnership, with a focus on modernizing and diversifying the defense collaboration.
  ○ **Joint Military Production:** The two countries have been discussing how they can cooperate in **using India as a production base** for exporting to third countries Russian-origin equipment and services.
    ● For instance, India and Russia have formed a **joint venture** for the production of **Brahmos missiles**.
➢ **Facilitating Economic Engagement :**
  ○ **Diversification of Economic Ties**: Both countries should focus on diversifying and expanding their economic relations. This includes exploring new sectors for collaboration, increasing trade volumes, and encouraging investments.
  ○ **Trade Facilitation**: Both countries should work towards **reducing trade barriers and simplifying trade processes**. Enhance economic collaboration by creating a conducive environment for businesses from both countries to operate smoothly.

○ **Rupee-Ruble Mechanism:** Both sides need to resort to the **Rupee-Ruble mechanism** to safeguard bilateral trade from the impact of Western sanctions.

➢ **Balancing the Global Dynamics :**

○ **Multilateral Engagement**: Coordinate closely in multilateral forums such as **BRICS** and the **SCO**. Collaborate on global issues, advocate for shared values and principles, and work together to address common challenges on the international stage.

○ **Institutional Mechanisms**: Strengthen institutional mechanisms for regular dialogue and collaboration. This includes **enhancing the effectiveness of existing agreements and creating new platforms for engagement** at various levels, from government officials to business leaders.

➢ **Forging Technological Cooperation:**

○ **Innovation and Technology Cooperation**: Foster collaboration in emerging technologies, including **artificial intelligence**, **space exploration**, **cybersecurity**, and **renewable energy**. Joint research and development initiatives can lead to technological advancements beneficial to both countries.

○ **Energy Security**: Explore opportunities for **cooperation in the energy sector**, including joint ventures in **oil and gas exploration, renewable energy projects**, and the **development of energy infrastructure**. Addressing energy security concerns can be mutually beneficial.

➢ **Promoting Cultural Connectivity :**

○ **Yoga and Cultural Diplomacy**: Leverage the popularity of Yoga in Russia to enhance cultural diplomacy. Promote cultural events, language education, and exchanges to deepen the understanding of each other's cultures.

○ **Public Diplomacy**: Engage in public diplomacy efforts to create awareness and understanding of the bilateral relationship among the citizens of both countries. Utilize media, social platforms, and cultural events to promote positive narratives

### Conclusion:

India-Russia relationship stands resilient amid global shifts, grounded in trust and common interests. Amidst these dynamics, fostering resilience, open communication, and a shared commitment to global peace will determine the success of India-Russia relations in the years ahead. The Indian Foreign Minister rightly held that "Geopolitics and strategic convergence will always keep India-Russia ties on a positive trajectory."

# Drishti Mains Questions

1. Examine the necessity for industry-academia collaboration in India. Discuss the challenges involved and propose solutions for the successful implementation of industry-academia collaboration in the country.

2. Examine the multifaceted challenges and significance of sexual education in India, with a focus on the intersectionality of caste and gender. Propose policy measures for the effective integration of sexual education into the Indian education system.

3. Discuss the challenges faced by the Indian state in its current bureaucratic framework. What reforms are needed to address those challenges?

4. Discuss the social and economic vulnerabilities faced by persons with disabilities in India. How do these vulnerabilities intersect with factors such as gender and rural living?

5. Define the concept of hidden costs within the agrifood system. What would you suggest to make the agrifood system sustainable in the country?

6. Discuss the significance of the Unlawful Activities Prevention Act (UAPA) in India's counterterrorism strategy. Suggest measures for achieving a more balanced and transparent legal framework.

7. Compare and contrast between multidimensional poverty index and human development index (HDI). Also, discuss the challenges in MPI calculation in India and suggest some measures to improve MPI calculation.

8. Discuss the geopolitical challenges faced by India in its immediate neighborhood. How can India navigate these challenges to strengthen its influence in South Asia, considering the rise of China and the changing dynamics of the region?

9. Analyze the government's Compressed Bio-Gas (CBG) Blending Obligation, which involves gradually blending Compressed Bio-Gas (CBG) in CNG and PNG. Identify and discuss the challenges associated with the implementation of the CBG Blending Obligation.

10. Evaluate the impact of a declining export-led growth strategy on India's economy and employment. Propose strategic measures for India to navigate these challenges and foster sustainable economic growth.

11. Analyze the Supreme Court's recent judgment on its abrogation of Art 370 and evaluate the impact of this decision on violence, economic growth, infrastructure development, and tourism in the region.

12. Examine the challenges posed by excessive dependence on consultancy firms in government projects. How can these challenges be mitigated to ensure the effective and ethical implementation of policies?

13. What are the major outcomes of the 28th session of the Conference of the Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC)? Discuss the key challenges and propose strategies to enhance the successful implementation of the stated objectives in COP 28.

14. Drishti Mains Questions: What is the need of having reservations in India? Analyze the issues with the reservation policies and suggest reforms.

15. Examine the key provisions of the Forest Rights Act, 2006, and analyze how it aims to address historical injustices faced by forest-dwelling communities in India.

16. Evaluate the measures taken by the government to ensure the protection of human rights in Left Wing Extremism-affected areas. Discuss the challenges and propose improvements.

17. Identify and discuss the challenges associated with the Anti-Defection Law. Propose reforms to address the concerns related to the law.

18. Discuss the significance of India's Ethanol Blending Program in achieving energy security, reducing fossil fuel dependence, and mitigating environmental impact.

19. What are the issues with the school education system in India? How can the current system in India address these challenges and ensure inclusive quality education?

20. Discuss the factors contributing to the deceleration in Gross Capital Formation in Agriculture (GCFA) in India and government initiatives aimed at addressing this issue and propose strategic measures to enhance capital formation in the agricultural sector.

21. Analysing the persistent challenges of unemployment in India, particularly related to jobless growth, examine the factors contributing to the high unemployment rates.

22. Highlight the key challenges posed by Cyber Attacks on india. How can the government formulate effective strategies to mitigate the risks posed by cyber attacks?

23. Examine the importance of a National Industrial Policy in addressing the job creation challenge in India.

24. Discuss the concept and benefits of natural farming in the context of India's agricultural sector. How can natural farming be promoted and scaled up?

25. Discuss the significance of incorporating happiness as a key indicator in India's development model. How can a Happiness Induced Development model be Incorporated with Growth?

26. How does the evolving global geopolitical landscape impact the dynamics of the India-Russia relationship? Suggest measures to ensure the continued positive trajectory of these bilateral ties.