



## Green Revolution in Maize

**For Prelims:** [Green revolution](#), [Maize](#), [Cereal crop](#), [Ethanol](#), [Ethanol blending](#), [National Food Security Mission](#)

**For Mains:** Food Security, Agricultural Resources, Green revolution

[Source: IE](#)

### Why in News?

Recently, [India's maize industry](#) has undergone a remarkable transformation, evolving from a **basic feed crop to a crucial component in the fuel and industrial sectors**.

- This shift is indicative of a broader [green revolution](#), echoing the historic advances made in wheat and rice but with a modern twist driven largely by private-sector innovations.

### What is the Current State of Maize Production in India?

- **Tripling Production:** Since 1999-2000, India's maize production has more than tripled, increasing from **11.5 million tonnes to over 35 million tonnes** annually, with average per-hectare yields also rising from 1.8 to 3.3 tonnes.
  - As per [APEDA](#), India is the **fifth largest maize producer**, accounting for 2.59% of global production in 2020.
  - Maize is the **third most important cereal crop in India** after [rice and wheat](#). It accounts for around 10% of total food grain production in the country.
- **Yield Improvements:** Average per-hectare yields have risen from 1.8 to 3.3 tonnes over the same period.
- **Major States:** Karnataka, Madhya Pradesh, Bihar, Tamil Nadu, Telangana, Maharashtra, and Andhra Pradesh are the primary maize-growing states.
- **Year-Round Cultivation:** Maize is grown throughout the year, predominantly as a Kharif crop (85% of the maize cultivation area is during this season).
- **Export Volume:** India exported 3,453,680.58 MT of maize worth Rs. 8,987.13 crores in 2022-23.
  - **Major Export Destinations:** Bangladesh, Vietnam, Nepal, Malaysia, and Sri Lanka are key markets for Indian maize.
- **Major Uses:** Approximately **60% of maize is used as feed for poultry** and livestock, while only about **20% is directly consumed by humans**.
  - Maize is a primary energy source in livestock feed, with 55-65% of broiler feed and 15-20% of cattle feed comprising maize.
  - **Starch and Ethanol:** Maize grains, containing 68-72% starch, are used in industries such as **textiles, paper, and pharmaceuticals**.
    - Recent developments have shifted focus to using maize for [ethanol production](#), particularly as a **substitute for rice in ethanol blending** due to food security concerns.
    - During the crushing season, distilleries run on sugarcane molasses and juice/syrup, while in the off-season they use grains, with the recent shift towards maize.

## How does Maize's Green Revolution Compare to Wheat and Rice?

- **Self-Pollinating vs. Cross-Pollinating:** Unlike **self-pollinating** wheat and rice, **maize's cross-pollinating** nature makes hybrid breeding commercially viable.
  - The Green Revolution in wheat and rice was driven by farmers cultivating high-yielding varieties being self-pollinating plants that are not amenable to hybridization.
  - The Green Revolution in maize has been, and continues to be, a private sector-led one. Private-sector [hybrids](#) dominate over **80% of maize cultivation, with high yields limited to the first generation.**
    - Farmers cannot harvest the same yields if they save the grains from these yields and reuse them as seeds (self termination nature of seeds).
- **Innovations in Maize Cultivation:** The Indian Agricultural Research Institute (IARI) has bred India's first "**waxy**" **maize hybrid** (AQWH-4) with high **amylopectin starch content**, making it better suited for ethanol production.
  - The starch in maize is a mixture of two polymers, comprising glucose molecules bonded together in a **straight chain (amylose) and in branched form (amylopectin).**
  - Normal maize starch has 30% amylose and 70% amylopectin, while IARI's waxy maize hybrid has 93.9% amylopectin.
    - Amylose starch makes the grain hard, while amylopectin makes it soft, affecting starch recovery and fermentation rates.
    - Softness aids in better grain grinding for flour production. Granules with higher amylopectin are more easily broken down into glucose units. The glucose is then fermented into ethanol using yeast.
  - Normal maize grains have 68-72% starch, but only 58-62% is recoverable. The new [Pusa Waxy Maize Hybrid-1](#) has 71-72% starch with 68-70% recovery.
    - This **hybrid offers an average yield of 7.3 tonnes per hectare** and has the potential to reach 8.8 tonnes.
- **Private Sector's Role:** The International Maize and Wheat Improvement Center (CIMMYT) has established a **maize doubled haploid (DH)** facility in Kunigal (Karnataka), producing high-yielding, genetically pure inbred lines.
  - This facility speeds up the development of maize hybrids and enhances breeding efficiency.
  - In the conventional process, inbred lines are formed by continuous **self-pollination for 6-8 generations**. DH technology enables the production of completely uniform lines after **just two cropping cycles**.
  - In 2022, the Kunigal facility produced and shared 29,622 maize DH lines. The lines are **high-yielding, tolerant to drought, heat, and water-logging, nutrient-use efficient, and resistant to pests** and diseases such as fall armyworm and maize lethal necrosis.
  - Companies like Mahyco, Shriram Bioseed, Advanta Seeds, and others play a significant role in developing and promoting high-yield maize hybrids.

## What are the Initiatives to Promote Maize in India?

- [National Food Security Mission \(NFSM\).](#)
- **India Maize Summit:** Organized in 2022, with a focus on securing a sustainable maize supply to meet growing demand and increase farmer prosperity.
- [Rashtriya Krishi Vikas Yojana \(RKVY\).](#)

## Green Revolution

- It was led by **Norman Borlaug in the 1960s**, resulted in the development of High Yielding Varieties (HYVs) of wheat and led to him winning the [Nobel Peace Prize](#) in 1970.
- In India, [M.S. Swaminathan](#) played a key role in the Green Revolution, which significantly increased food grain production, especially **wheat and rice.**
  - The revolution transformed India from a food-deficient country to one of the world's leading agricultural nations between 1967-68 and 1977-78.
- It included the incorporation of various irrigation methods to **reduce dependence on rainfall**. Mechanisation of major agricultural practices to **reduce labour costs** and increase efficiency. Use of [chemical fertilizers and pesticides](#) to enhance soil fertility and protect crops.

- **Double cropping in existing farmland** to increase cropping intensity and yield.
- Expansion of farming area by bringing more land under cultivation, especially in semi-arid and arid regions, using irrigation and HYV seeds.
- The Green Revolution significantly led to a substantial increase in grain output, making **India one of the largest agricultural producers in the world.**
  - As a result, **India became a net exporter of wheat, rice, and other food grains**, with record-high exports in recent years.
- The higher productivity also contributed to [poverty alleviation](#) by lifting many small-scale farmers out of poverty through increased incomes.
- The Green Revolution brought several challenges, including **environmental degradation from synthetic fertilizers and pesticides, soil erosion, and water pollution.** It also led to **loss of biodiversity and genetic diversity of crops**, displacement of indigenous crops, and traditional farming practices.
  - Additionally, it increased vulnerability of crops to pests, diseases, and [climate change](#).

**Drishti Mains Question:**

Q. Discuss the recent transformation of India's maize industry from a basic feed crop to a crucial component in the fuel and industrial sectors.

## UPSC Civil Services Examination, Previous Year Questions (PYQ)

### **Prelims**

Q. Given below are the names of four energy crops. Which one of them can be cultivated for ethanol? (2010)

- (a) Jatropha
- (b) Maize
- (c) Pongamia
- (d) Sunflower

**Ans: (b)**

## Centralised Hiring in Eklavya Model Residential Schools

**For Prelims:** [Eklavya Model Residential Schools \(EMRS\) scheme](#), [Tribal areas](#), Tribal education, [local language and culture](#).

**For Mains:** Requirement of Hindi Competency, [centralisation of recruitment](#).

**[Source:TH](#)**

### **Why in News?**

The centralisation of recruitment for the [Eklavya Model Residential Schools \(EMRS\)](#) across the country (introduced in 2023 Budget), which introduced **Hindi competency as a mandatory**

**requirement**, has resulted in a request for transfers.

- Although central officials emphasise that applicants were required to be willing to accept postings anywhere in the country, the larger concern is the **potential impact on tribal students being taught by teachers who are unfamiliar with the local language and culture.**

## What are Eklavya Model Residential Schools (EMRS)?

- EMRS is a scheme for making **model residential schools for Indian tribals (ST- Scheduled Tribes) across India.** It **started in** the year **1997-98.** Its **nodal ministry** is the **Ministry of Tribal Affairs.**
  - These schools are being developed to **provide quality education to tribal students,** focusing on academic as well as overall development.
  - The EMR Schools generally follow the **CBSE curriculum.**
- The scheme aims to **build schools similar to Jawahar Navodaya Vidyalayas and Kendriya Vidyalayas,** with a focus on **state-of-the-art facilities for preserving local art and culture,** as well as providing training in sports and skill development. The EMRS scheme was revamped in FY 2018-19.
- During the **2023 Budget session of Parliament,** the Finance Minister announced that the responsibility for recruiting staff in EMRS would be transferred to the **[National Education Society for Tribal Students \(NESTS\).](#)**
  - NESTS has now been tasked with **staffing 38,000 positions in over 400 Eklavya schools nationwide.**
  - The centralization of recruitment aimed to **address the severe teacher shortage** in the EMRS system and to **standardize recruitment rules across states.**

**Note:** National Education Society for Tribal Students (NESTS) is an **autonomous organization** established **under the Ministry of Tribal Affairs (MoTA).** Its objective is to **conduct training and capacity-building programs for teachers and students** of Eklavya Model Residential Schools (EMRSs).

## Other Initiatives for Tribal Education

- **Rajiv Gandhi National Fellowship Scheme (RGNF):** RGNF was introduced in 2005-2006 with the objective to encourage the students belonging to ST community to pursue higher education such as regular and full time M. Phil and Ph. D degree in Sciences, Humanities, Social Sciences and Engineering & Technology.
- **Vocational Training Center in Tribal Areas:** The aim of this scheme is to develop the skill of ST students depending on their qualification and present market trends.
- **National Overseas Scholarship Scheme:** It is a **Central Sector Scheme** to facilitate the **low income students** belonging to the **Scheduled Castes, Denotified Nomadic and Semi-Nomadic Tribes, Landless Agricultural Labourers and Traditional Artisans** category to **obtain higher education by studying abroad.**
- **Initiative for Digital Transformation of Tribal Schools:** This initiative aims to **build an inclusive, skills-based economy by providing [Artificial Intelligence](#) curriculum, training teachers, and mentoring students on AI-based projects for societal good and sustainable development**

## What is the Recent Issue Related to Recruitment to EMRS?

- **Requirement of Hindi Competency:**
  - The recent **centralization of recruitment introduced Hindi competency** as a **mandatory requirement.**
  - This has resulted in a large number of **staff recruited from Hindi-speaking states being posted to EMRS in southern states,** where the language, food, and culture are unfamiliar to them.



- The government has stated that the **requirement of basic Hindi language competency is not unusual**, as it is **mandatory for [Jawahar Navodaya Vidyalayas](#) and [Kendriya Vidyalayas](#) recruitment as well.**
- **Impact on Tribal Students:**
  - Most tribal students in Eklavya schools would benefit from teachers who understand their local cultural contexts, as the **communities have very specific contexts** under which **learning can be made conducive.**
    - Government officials have **stated that teacher recruits are expected to learn the local language within two years**, but there have been **apprehensions among the recruited teachers to learn a new, completely different language.**
  - The posting of **non-local teachers can negatively impact the learning of tribal students**, as they may not be able to adjust to teachers who are not aware of their cultural context.

## Way Forward

- **Localised Recruitment:**
  - The **recruitment of teachers from local communities should be prioritised** to ensure **they are familiar with the cultural and linguistic contexts of the students.**
  - Both **local and non-local teachers should be recruited** to ensure a **diversity of teaching methods** while respecting local traditions.
- **Flexible Language Requirements:**
  - The **mandatory Hindi competency requirement should be reevaluated** to allow for flexibility in non- Hindi speaking regions.
  - **Language support programs** should be actively encouraged for teachers to learn the local languages of the regions they are posted to.
- **Cultural Sensitivity Training:**
  - **Comprehensive cultural sensitivity training** should be provided to all teachers, especially those from non-local areas, to help them **understand and integrate into the community they are serving.**
  - Develop **ongoing professional development programs** focusing on local cultural contexts and language skills.
- **Policy Review:**
  - Regular **reviews of the recruitment policy should be conducted** to assess its impact on both teachers and students, making necessary adjustments to address emerging issues.
  - Ensure that policies are adaptable to the diverse cultural and linguistic landscapes across different states.

### Drishti Mains Question:

Q. Discuss the issues related to Eklavya Model Residential Schools (EMRS) and how to solve them?

## UPSC Civil Services Examination, Previous Year Question (PYQ)

Q. Consider the following statements about Particularly Vulnerable Tribal Groups (PVTGs) in India: (2019)

1. PVTGs reside in 18 States and one Union Territory.
2. A stagnant or declining population is one of the criteria for determining PVTG status.
3. There are 95 PVTGs officially notified in the country so far.
4. Irular and Konda Reddi tribes are included in the list of PVTGs.

Which of the statements given above are correct?

(a) 1, 2 and 3

(b) 2, 3 and 4

(c) 1, 2 and 4

(d) 1, 3 and 4

Ans: (c)

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## Reservation for Locals in Private Sector

**For Prelims:** [Article 16\(4\)](#), [Art 16\(2\)](#), [Art 19\(1\)\(g\)](#), [Article 19\(1\)\(d\) and \(e\)](#), [Constitutional morality](#), Reservation Policy

**For Mains:** Reservation based on Domicile: Validity, Arguments for and against, Way forward

[Source: IE](#)

### Why in News?

Recently, the Karnataka government has put on hold the “**Karnataka State Employment of Local Candidates in the Industries, Factories and Other Establishments Bill, 2024**,” mandating **reservations for locals in the private sector** after a huge backlash from the industry.

- The government has now decided to review the bill comprehensively before its reintroduction in the state assembly.

### 10% Agniveer Quota in Haryana

- Recently, the Haryana government has announced to provide employment opportunities for Agniveers, the recruits under the [Agnipath scheme](#) introduced by the central government in 2022. It provided for-
  - 10% reservation in constable, mining guard, forest guard, jail warder, and SPO recruitments.
  - Age relaxations for Group-B and Group-C posts.
  - 5% reservation in Group-C and 1% in Group-B direct recruitments.
  - Subsidies for private firms hiring Agniveers.
  - Loan interest benefits for business startups.
  - Priority in arms licenses and government jobs for Agniveers.

### What is Karnataka’s Reservation for Locals in the Private Sector Bill?

- **Reservation Policy:** The Bill mandates a substantial reservation of 75% for 'local candidates' in non-management positions and 50% in management positions within private sector companies, industries, and enterprises in Karnataka.
- **Definition of 'Local Candidate':** It defines “local candidates” as individuals born in the state

or living in Karnataka for at least 15 years, and are capable of speaking, reading, and writing Kannada.

- **Job Categorisation:** It categorises jobs **into management and non-management** roles.
  - **Management roles** would include supervisory, managerial, technical, operational, and administrative positions.
  - **Non-management roles** will include clerical, unskilled, semi-skilled, and skilled positions in the [IT-ITES sector](#).
- **Skill Development Provision:** Industries are required to provide training programs for local candidates **to address skill gaps, with a 3-year timeframe** for implementation in the absence of qualified local candidates.
- **Flexibility Clause:** It introduces a provision for reducing the reservation quota to **50%** in non-management and **25%** in management positions under **specific circumstances**.

### Note:

- **Job reservation Bills or laws for domiciles** have also been announced **in other States including** Andhra Pradesh, Madhya Pradesh and Jharkhand.
- The **job quota Bill passed in the Andhra Pradesh** Legislative Assembly in 2019, also **reserved three-fourths of private jobs for locals**.

## What are the Legal Challenges with Domicile-Based Reservations?

- **Balancing Equality and Affirmative Action:** Domicile-based reservations present a legal challenge under India's Constitution.
  - [Article 14](#) guarantees equality before the law, while [Articles 15 \(Prohibition of Discrimination based on religion, race, caste, sex or place of birth\)](#) and [Article 16 \(Equality of Opportunity in Public Employment\)](#) allow for special provisions benefiting backward classes, **without prejudice to non-domicile candidates**.
- **Supreme Court (SC) and High Court Judgments:**
  - In *Dr. Pradeep Jain v. Union of India (1984)*, the Supreme Court (SC) held that while some preference could be given to domicile candidates, it should not be absolute and should not exclude non-domicile candidates altogether.
    - Supreme Court asks MP Govt to review its 75% domicile quota in B.Ed seats.
  - In November 2023, the **Punjab & Haryana High Court** deemed Haryana's law [mandating 75% reservation for locals in the private](#) sector **unconstitutional**. The court criticised the law for creating artificial divisions among citizens and disrupting laissez-faire principles. Subsequently, the Haryana government appealed the decision to the Supreme Court.
- **Limit on the Quota:** The Supreme Court ruling in the [Indra Sawhney case \(1992\)](#) established that total reservations, including domicile reservations, **should not surpass 50% of available seats or posts**. This limit applies to all categories of reservations, as emphasised in the judgement primarily addressing reservations for Other Backward Classes (OBCs).

## What are the Arguments in Favour of the Private Sector Reservation Bill?

- **Local Employment Generation:** The policy aims to **increase job opportunities for local residents, reducing unemployment** and ensuring economic benefits are retained within the state.
- **Economic Equity and Balanced Regional Development:** The policy aims to **promote economic equity** by addressing disparities in resource distribution within the state.
  - Additionally, it **supports balanced regional development** by spreading economic opportunities across various areas, rather than concentrating them solely in a few urban centres.
- **Skill Development:** Mandatory training programs can **enhance the skills of the local workforce, making them more competitive** and better equipped to meet industry demands.

- **Social Stability:** Providing more job **opportunities to locals** can foster a **stronger sense of belonging** and reduce social tensions, promoting community harmony.
- **Talent Retention:** The policy can help **retain skilled individuals within the state, preventing brain drain** and ensuring their expertise contributes to the local economy.
- **Cultural Preservation:** The **language proficiency requirement helps preserve and promote the local language and culture**, fostering a stronger cultural identity.

## What are the Arguments Against the Private Sector Reservation Bill?

- **Impact on Business Competitiveness:** The policy may limit companies' ability to hire the best talent, adversely affecting their **efficiency and competitiveness**.
- **Skill Shortages:** The local workforce may lack the necessary skills for specialised roles, leading to **operational inefficiencies and increased training costs**.
- **Investment Deterrence:** The local hiring restrictions could **deter domestic and international investors**, negatively impacting the state's economic development and job creation.
- **Legal and Administrative Burden:** Ensuring **compliance with the policy** could impose additional **legal and administrative costs** on companies.
- **Discrimination Concerns:** The policy has been **criticised for potentially discriminating against non-local candidates**, violating the principle of equal opportunity.
- **Economic Impact:** Domicile-based reservations may adversely affect a state's economic growth by deterring businesses and limiting job opportunities.
  - Moreover, in regions experiencing significant inward migration, such policies could hinder national integration and economic mobility.
- **Social Tensions:** The **policy could exacerbate social tensions between local and non-local residents, creating a divisive environment and undermining social cohesion**.

## Way Forward

- The reservation policy could be implemented in a way that does not hamper the free movement of manpower resources in the Country.
- The reservation policy could be revisited periodically to assess its impact on the economy and industries in the state.
- Need to ensure that any policy decision taken is in compliance with the Constitution of India and does not violate the fundamental rights of citizens.

### **Drishti Mains Question:**

Assess the arguments for and against state-imposed domicile reservations in private employment in India.

## UPSC Civil Services Examination, Previous Year Questions (PYQs)

**Q.** Whether the National Commission for Scheduled Castes (NCSC) can enforce the implementation of constitutional reservation for the Scheduled Castes in the religious minority institutions? Examine. **(2018)**

## Role of the Financial Sector in India's Development

**For Prelims:** [Developed nation status](#), [Reserve Bank of India](#), [Capital formation](#), [Sustainable development](#), [Low-carbon economy](#), [Renewable energy](#), [Financial inclusion](#), [Bank privatisation](#), [Green projects](#), [Equities markets](#), [Basel Committee](#), [Corporate bonds](#)



[Source: LM](#)

## Why in News?

India's ambitious goal to achieve developed nation status by its **centennial independence anniversary in 2047** hinges significantly on the **robustness of its financial sector**.

## How Can the Financial Sector Support Development of India?

- **Sustained High Growth:** According to a recent study by the [Reserve Bank of India](#), India needs to grow at a **rate of 7.6% annually** for the next 25 years to become a developed nation.
  - Sustaining high growth rates for a long period will **require a stable, efficient, and innovative financial system** that meets the requirements of Indian households and businesses, and also the governments, **without compromising macro-financial stability**.
- **Mobilisation of Savings: Capital accumulation** needs to be **at a faster rate** with a **focus on both domestic and external sources** for capital formation.
  - The **demand for finance** and capital will stem from **large-scale infrastructure projects**, heightened manufacturing needs, **expansion of the formal economy**, and growing trade activities.
  - The supply of finance and capital requires **mobilising domestic savings, sustainable foreign capital** and strengthening credit, debt, and equity markets.
- **Role of Banking Sector:**
  - **Need for New Financial Institution:** A **diverse range of banks and NBFCs** of varying sizes, including **digital, wholesale/investment, and niche banks**, are essential to support **financial inclusion** and fund large-scale projects.
  - **Role of Fintech Companies:** **The role of fintech companies in furthering financial reach and inclusion, and adding efficiency to the banking and financial system in the coming years is crucial.**
    - The Reserve Bank's policy position that fintech companies cannot lend on their balance sheets has **even reduced direct financial risks**.
  - **Privatisation of Banks:** As per the bank balance sheets for the March 2024 quarter, seven PSBs have **less than 1% of loan advances in net NPAs**. None of the PSBs are anymore under the Reserve Bank of India (RBI)'s [Prompt Corrective Action framework](#) which imposes lending restrictions.
    - **Privatising Public Sector Banks would level the banking field by removing bureaucratic hurdles** and pay restrictions, boosting their profitability and valuation, and potentially equalizing them with private banks, benefiting credit access, investment, and job growth.
- **Role of Capital Market:**
  - The government aims for India to reach [net zero emissions by 2070](#) and reduce GDP emissions by 2030, but achieving these goals will depend on having the finance for necessary projects and schemes.
    - The Indian markets, with market capitalisation crossing **USD 5 trillion, are now ranked fourth in the world** in terms of size, behind the US, China, and Japan. The market cap to GDP ratio recently crossed 150%.
  - **Indian capital markets are equipped to handle technological changes, with**

**regulators**, institutions, and participants adept at using AI and ML, positioning equities markets to support India's development goals.

## What Challenges Does the Financial Sector Face?

- Despite the role of fintech companies in expanding financial access and improving efficiency their rapid growth poses **challenges like customer protection and potential indirect risks** for both banks and non-banks.
- There are also **concerns about emerging concentration risks as Big Tech firms increasingly dominate the fintech sector**. Fintech companies, currently unregulated, face calls for direct regulatory oversight, despite challenges of feasibility and effectiveness.
- **Digital lending, buy-now-pay-later (BNPL), and pay-as-you-go schemes** face the challenge of potential **overextension and irrational enthusiasm** due to their rapid scale and adoption rates.
  - Common risks include mis-selling and excessive exposure.
- There is a challenge posed by **increased risks associated with data protection, privacy, cybersecurity**, and operational issues that must also be considered.
- Despite **improving their balance sheets, PSBs struggle with a price-to-book multiple significantly lower than Indian private banks**, suggesting potential underperformance.
- Private banks often choose to **maintain lower credit growth but higher margins, avoiding the need to compete for deposits**.
  - This results in low deposit rates, which may drive Indian savers to favour equity and housing investments, presenting a challenge for deposit growth.
- **India's underdeveloped [corporate bond market](#)** needs urgent government attention to utilise its full potential.

## Way forward

- **Banking Sector:**
  - The **reluctance to allow significant stakes** from business and industrial houses, private equity, venture capital funds, and foreign banks in banks **must be reconsidered due to the substantial capital requirements** of banks.
  - To ensure banks, NBFCs, and fintechs operate safely, securely, and efficiently despite their tendency for excessive exuberance, there is a **need to establish and deliberate on robust guardrails for the banking system**.
  - It is crucial to adapt and implement the well-established guard rails developed by the **[Basel Committee on Banking Supervision under the Bank for International Settlements \(BIS\)](#)**, which have been refined over the years based on global financial developments and experiences.
- **Capital and Securities Market:**
  - **Fast-growing areas need increased regulatory attention** to prevent the market from underestimating risks. Regulators must anticipate potential issues and implement safeguards while allowing room for innovation.
  - The top priority should be **to unify the bond market regulations for [G-Secs](#) and [corporate bonds](#)**, streamlining processes for investors, traders, and stakeholders alike.
  - **The focus should be on the developing bond market as it is crucial for funding green and energy transition projects**, which will increasingly rely on foreign investment, requiring specific facilitative measures.
- **Other Measures:**
  - Apart from banks, **privatising other parts of the financial sector, such as insurance and power-sector finance**, should also be considered as steps in unison.
  - **Revamping urban infrastructure in India remains crucial, especially with an estimated 800 million people expected to reside in urban areas by 2050**; however, municipalities struggle with resource shortages and funding for development projects despite efforts to promote municipal bonds since 2015.

- Implementation of **countercyclical buffers and provisions for standard assets**, akin to the RBI's recent prudential guidelines on project financing should be considered.

**Drishti Mains Question:**

Q. Discuss the role of India's financial sector in facilitating the country's journey towards achieving developed nation status by 2047.

**UPSC Civil Services Examination, Previous Year Question (PYQ)**

**Prelims:**

**Q1. With reference to 'Urban Cooperative Banks' in India, consider the following statements: (2021)**

1. They are supervised and regulated by local boards set up by the State Governments.
2. They can issue equity shares and preference shares.
3. They were brought under the purview of the Banking Regulation Act, 1949 through an Amendment in 1966.

**Which of the statements given above is/are correct?**

- (a) 1 only
- (b) 2 and 3 only
- (c) 1 and 3 only
- (d) 1, 2 and 3

**Ans: (b)**

**Q. Which one of the following links all the ATMs in India? (2018)**

- (a) Indian Banks' Association
- (b) National Securities Depository Limited
- (c) National Payments Corporation of India
- (d) Reserve Bank of India

**Ans: (c)**

**Mains:**

**Q. Pradhan Mantri Jan Dhan Yojana (PMJDY) is necessary for bringing unbanked to the institutional finance fold. Do you agree with this for financial inclusion of the poorer section of the Indian society? Give arguments to justify your opinion. (2016)**

# Project ASMITA

[Source: TH](#)

## Why in News?

Recently, project **ASMITA (Augmenting Study Materials in Indian languages through Translation and Academic Writing)** was launched to produce **22,000 books in Indian languages** in the **next five years**.

- It is **one of the several initiatives** taken by the government to promote Indian languages in the education system on the lines of the [National Education Policy \(NEP\) 2020](#).

## What is Project ASMITA?

- **About:**
  - It was launched by the [Union Ministry of Education](#) and the [University Grants Commission \(UGC\)](#).
  - It is a collaborative effort of the **UGC and the Bharatiya Bhasha Samiti** to promote Indian languages in education.
    - The **UGC** was established in 1953 (became a statutory organisation in 1956), for the coordination, determination and maintenance of standards of teaching, examination and research in university education.
    - **Bharatiya Bhasha Samiti** is a High Powered Committee for Promotion of Indian Languages constituted by the **Ministry of Education** in 2021.
  - **13 nodal universities** along with member universities from various regions have been identified to lead this project.
  - The **UGC** has created a **Standard Operating Procedure (SOP)** for the book-writing process in each assigned language.
  - The project aims to produce **1,000 books in 22 languages** within **five years**, resulting in 22,000 books in Bharatiya Bhasha (Indian languages).
    - Also, the commission aims to produce **1,800 textbooks covering Arts, Science and Commerce** streams by **June 2025**.
- **Other Initiatives Launched with Project ASMITA:**
  - **Bahubhasha Shabdkosh:**
    - Developed by the **Central Institute of Indian Languages (CIIL)** in collaboration with the **Bharatiya Bhasha Samiti**, it is a comprehensive **multilingual dictionary repository**.
    - It will help in using **Bharatiya** words, phrases and sentences for various new age domains like **IT, Industry, Research, and Education**.
  - **Real-time Translation Architecture:**
    - Developed by **National Educational Technology Forum (NETF)** and **Bharatiya Bhasha Samiti**, it aims to make a framework for enhancing real-time translation in Indian languages.
      - **NETF** has been conceived as an autonomous body, incorporated as a Society that would facilitate decision making on the deployment, induction and use of technology for the realisation of **NEP** objectives.
- **Objective:**
  - It will help to create a **comprehensive pool of academic resources in 22 scheduled languages**, bridge linguistic divide, foster social cohesion and unity and also transform the nation's youth into socially-responsible global citizens.

## Note

- The [Eighth Schedule to the Indian Constitution](#) consists of the following **22 languages**:
  - Assamese, Bengali, Gujarati, Hindi, Kannada, Kashmiri, Konkani, Malayalam, Manipuri, Marathi, Nepali, Oriya, Punjabi, Sanskrit, Sindhi, Tamil, Telugu, Urdu, Bodo, Santhali, Maithili and Dogri.



Read more: [National Education Policy, 2020](#)

## UPSC Civil Services Examination, Previous Year Question (PYQ)

### ***Prelims:***

**Q. Under which one of the following Constitution Amendment Acts, four languages were added to the languages under the Eighth Schedule of the Constitution of India, thereby raising their number to 22? (2008)**

- (a) Constitution (Ninetieth Amendment) Act
- (b) Constitution (Ninety-first Amendment) Act
- (c) Constitution (Ninety-second Amendment) Act
- (d) Constitution (Ninety-third Amendment) Act

**Ans: (c)**

**Q. Which one of the following was given classical language status recently? (2015)**

- (a) Odia
- (b) Konkani
- (c) Bhojpuri
- (d) Assamese

**Ans: (a)**

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## Foreigners Tribunals in Assam

[Source: TH](#)

### **Why in News?**

Recently, the Assam government has asked the Border wing of the State's police **not to forward cases of non-Muslims who entered India illegally** before 2014 to the [Foreigners Tribunals \(FTs\)](#).

- This was in keeping with the [Citizenship \(Amendment\) Act of 2019](#) which provides a **citizenship application window for** Hindus, Sikhs, Christians, Parsis, Jains, and Buddhists who allegedly fled persecution in Afghanistan, Bangladesh, and Pakistan.

### **What are Key Facts About the Foreigners Tribunals (FTs)?**

- **About:**

- The **FTs are quasi-judicial bodies** formed by the central government through the [Foreigners \(Tribunals\) Order of 1964](#) under **Section 3 of the Foreigners' Act of 1946**, to let local authorities in a State refer a person suspected to be a foreigner to tribunals.
- **Foreigners (Tribunals) Order (Amendment 2019):** The [2019 amendment to the Order](#), only **lays down the modalities for the Tribunals** to decide on appeals made by persons not satisfied with the outcome of claims and objections filed against the NRC.
  - The **Ministry of Home Affairs (MHA)** has also **empowered district magistrates** in all States and Union Territories to set up tribunals.
  - All these orders **apply to the whole country** and are not specific to any state.
    - However, the Foreigners Tribunals under this order have been **established only in Assam and in no other state of the country**, this amendment in effect is going to be relevant only to Assam at present.
    - Moreover, **cases of "illegal immigrants" are dealt with according to the Foreigners' Act** in other states.
- **Types of Cases:** The FTs get **two kinds of cases:**
  - Those against whom a "reference" has been made by border police.
  - Those whose names are in the electoral rolls have a D (Doubtful) against them.
    - **Cases of 'D' or doubtful voters** can also be **referred to an FT by the Election Commission of India.**
- **Composition:**
  - Each FT is **headed by a member drawn from judges**, advocates, and civil servants with judicial experience.
  - Judges/Advocates have been **appointed as members of FT under the Foreigners Tribunal Act, 1941**, and Foreigners Tribunal Order 1964 as per the guidelines issued by the government from time to time.
- **Function:**
  - According to the 1964 order, an FT has the **powers of a civil court** in certain matters such as **summoning and enforcing the attendance of any person**, examining him or her on oath, and requiring the production of any document.
  - A **tribunal is required to serve a notice in English** or the official language of the State to a person alleged to be a foreigner **within 10 days of receiving the reference** from the authority concerned.
  - An FT has to **dispose of a case within 60 days of reference.**
    - **Section 9 of the Foreigners Act** says that the onus of proving that such person is not a foreigner shall, notwithstanding anything mentioned in the **Indian Evidence Act, 1872, lie upon such person.**
    - If the person fails to provide any proof of citizenship, the **FT can send him or her to a detention centre**, now called a transit camp, for deportation later.
- **Appeal Against Order of FT:**
  - The **review application can be filed within 30 days of the date of the order** and the FT will decide the case on merits.
  - In case of an adverse order by the FT it can be **appealed against in the High Court** and subsequent appeal can be filed in **Supreme Court.**

## Constitutional Provisions Related to Tribunals

- It was incorporated by the **42<sup>nd</sup> Amendment Act, 1976.**
  - [Article 323-A](#) deals with Administrative Tribunals
  - [Article 323-B](#) deals with tribunals for other matters

## What is the Role of the Border Police of Assam?

- The [Assam Police Border Organisation](#) was established as a **part of the State Police's Special Branch in 1962** under the **Prevention of Infiltration of Pakistani (PIP) scheme.**
- The organisation was made an **independent wing in 1974.**
- The members of this wing are **tasked with detecting and deporting illegal foreigners and**

patrolling the India-Bangladesh border with the [Border Security Force](#).

## UPSC Civil Services Examination, Previous Year Question (PYQ)

### Prelims:

#### Q. Consider the following statements: (2009)

1. Central Administrative Tribunal (CAT) was set up during the Prime Ministership of Lal Bahadur Shastri.
2. The Members for CAT are drawn from both judicial and administrative streams.

#### Which of the statements given above is/are correct?

- (a) 1 only
- (b) 2 only
- (c) Both 1 and 2
- (d) Neither 1 nor 2

Ans: (b)

### Mains:

Q. "The Central Administrative Tribunal which was established for redressal of grievances and complaints by or against central government employees, nowadays is exercising its powers as an independent judicial authority." Explain. (2019)

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## ECI to Verify Microcontrollers of EVMs

Source: IE

Recently, the [Election Commission of India \(ECI\)](#) has released **Standard Operating Procedure (SOP)** for verifying the **burnt memory (or microcontrollers)** of [Electronic Voting Machines \(EVMs\)](#) and [Voter Verifiable Paper Audit Trail \(VVPAT\)](#) systems.

- Following the [Supreme Court's](#) order in [Association of Democratic Reforms v. Election Commission of India Case, 2024](#), the EC allowed **verification of up to 5% of EVM and VVPAT microcontrollers** in Assembly and Lok Sabha constituencies upon written request from the second and third-place candidates.
- A mock poll of up to 1,400 votes per machine will be conducted, and if results match the VVPAT slips, it indicates that **there is no tampering with the burnt memory** and they are considered verified.
  - However, the procedure for handling mismatches remains undecided.
- The technical SOP was prepared by two **public sector units (PSUs)** that manufacture EVMs: [Bharat Electronics Limited \(BEL\)](#) and [Electronics Corporation of India Limited \(ECIL\)](#).
- **Electronic Voting Machine (EVM):**
- It consists of 2 parts, a **Control Unit (CU)** and a **Ballot Unit (BU)**.
  - The Ballot Unit (BU) allows voters to cast their votes and shows candidates and symbols, while the Control Unit (CU) manages the BU and processes data.

- The EVMs were first used in **1982** in the bye-election to the Paravur Assembly Constituency of Kerala.

# ELECTORAL REFORMS IN INDIA

ELECTORAL REFORMS ARE CHANGES MADE TO IMPROVE THE ELECTION PROCESS AND ENSURE FAIRNESS.

### Electoral Reforms Before 1996

- ➔ **Model Code of Conduct (1969):** Guidelines to regulate political parties and candidates prior to elections
- ➔ **61st Constitutional Amendment Act (1988):** Lowering of the voting age from 21 to 18 years
- ➔ **Electronic Voting Machines (EVMs) (1989):** Switched from individual colored ballot boxes to ballot papers, and later to EVMs
- ➔ **Booth Capturing (1989):** Provision for adjournment of poll or countermanding of elections in such cases
- ➔ **Elector's Photo Identity card (EPIC) (1993):** Electoral roll is the basis to issue EPIC to registered electors
- ➔ **ECI- A Multi-member Body (1993):** Election commissioners were appointed in addition to CEC

### Electoral Reforms of 1996

- ➔ **Time-limit for By-elections:** Elections must occur within 6 months of any vacancy in a legislative house
- ➔ **Listing of Names of Candidates:** Contesting candidates categorized into 3 groups for listing
  - ➔ Recognised & registered-unrecognised political parties
  - ➔ Other (independent)
- ➔ **Disqualification for Insulting the National Honour Act, 1971:** Leads to election disqualification for 6 years upon:
  - ➔ Insulting the National Flag, Constitution of India or preventing the singing of National Anthem

### Electoral Reforms After 1996

- ➔ **Vote Through Proxy (2003):** Service voters in Armed Forces & forces under Army Act can vote by proxy
- ➔ **Allocation of Time on Electronic Media (2003):** Equitable sharing of time on electronic media during elections to address the public
- ➔ **Introduction of Braille Signage Features in EVMs (2004):** To facilitate the visually impaired voters to cast their votes without an attendant

### Electoral Reforms Since 2010

- ➔ **Voting Rights to Indian Citizens Living Abroad (2010)**
- ➔ **Online Enrollment in Electoral Roll (2013)**
- ➔ **Introduction of NOTA option (2014)**
- ➔ **VVPAT Voter Verified Paper Audit Trail (2013):** Introduction of VVPAT with EVMs to conduct free and fair elections
- ➔ **Photos of Candidates on EVMs and Ballot Papers (2015):** To prevent confusion in constituencies with namesake candidates
- ➔ **Introduction of Electoral bonds (2017 Budget):** An alternative to cash donations for political parties
  - ➔ Declared as unconstitutional by SC (2024)
- ➔ **Launch of Electronic EPIC (2021)**
- ➔ **Home Voting for People with Disabilities & Those Above 85 years of Age (2024)**

IMPORTANT COMMITTEES/ COMMISSION		
Committees/ Commission	Year	Purpose
■ Tarkunde Committee	1974	■ By Jaya Prakash Narayan (JP) during the "Total Revolution" movement.
■ Dinesh Goswami Committee	1990	■ Electoral Reforms
■ Vohra Committee	1993	■ On the Nexus between Crime and Politics
■ Indrajit Gupta Committee	1998	■ State Funding of Elections
■ Second Administrative Reforms Commission of India	2007	■ Report on Ethics in Governance (Headed by Veerappa Moily)
■ Tankha Committee (Core Committee)	2010	■ To look into the whole gamut of the election laws & electoral reforms.



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## Mutual Agreement on Organic Products



[Source: PIB](#)

Recently, India and Taiwan implemented the **Mutual Recognition Agreement (MRA) for [organic products](#)**.

- This agreement is a landmark achievement for both countries as it is the **first bilateral agreement** for organic products.
  - The implementing Agencies for the MRA are the [Agricultural and Processed Food Products Export Development Authority \(APEDA\)](#), Ministry of Commerce and Industry, India and the Agriculture and Food Agency, Ministry of Agriculture (AFA), Taiwan.
- Mutual recognition will **simplify organic product exports** by avoiding dual certifications, reducing compliance costs, **simplifying requirements, and enhancing trade opportunities** in the organic sector.
- The MRA will facilitate the export of key Indian organic products like **rice, processed food, green/black and herbal tea, and medicinal plant products** to Taiwan.
- **Schemes for Organic Products in India**
- [Indian Organic Logo](#).
- [Participatory Guarantee System for India](#).
- [National Programme for Organic Production \(NPOP\)](#)

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## India Completes UN Human Rights Review

[Source: HT](#)

Recently, India has successfully concluded its fourth periodic review by the [UN Human Rights Committee \(UNHRC\)](#) under the [International Covenant on Civil and Political Rights \(ICCPR\)](#) in Geneva.

- The review **highlighted India's dedication to engaging with international human rights standards** and its readiness to tackle concerns while maintaining its efforts to **protect and promote the human rights** of its citizens.
- The Indian delegation, led by top legal and government officials, discussed anti-corruption, non-discrimination, women's and minority rights, counter-terrorism, privacy, and new criminal laws with the Committee.

### UN Human Rights Committee (UNHRC):

- It is the **body** of 18 **independent experts, elected for a 4-year term** that monitors implementation of the ICCPR by its States parties.
- It operates on a part-time schedule, convening 3 times a year in Geneva, Switzerland, or New York, US to make decisions during its sessions.

### International Covenant on Civil and Political Rights (ICCPR)

- It is an **international treaty** that protects civil and political rights, including life, freedom of speech, religion, and assembly.
- India joined in **1979** and has had three reviews, the last in 1997.
- The Human Rights Committee reviews each party every 4 years.

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# India-Malaysia Agricultural Ties

[Source: PIB](#)

Recently, **India and Malaysia** have decided to deepen their bilateral cooperation in agriculture, with a particular **emphasis on oil palm cultivation** and the integration of digital technology.

- **Areas of Cooperation:** Discussed collaboration to advance the [National Mission on Edible Oil - Oil Palm \(NMEO-OP\)](#). Addressed market access issues for agricultural and allied products.
  - NMEO-OP, launched in 2021 to increase oil palm cultivation and crude palm oil production to 11.20 lakh tonnes by 2025-26. It is operational in 15 states, targeting an area of 21.75 lakh hectares.
  - The **Oil Palm Mission** aims to promote oil palm in new areas by providing support to farmers including planting material, buyback assurance, and protection from **global price volatility through viability gap payment**.
- India imports 57% of its edible oil, impacting the [Foreign Exchange reserves](#) by USD 20.56 billion. **India imports palm oil every year, accounting for around 56% of the total edible oil imports.**
  - At present against a total potential area of around 28 lakh hectares, only **3.70 lakh hectares are under oil palm cultivation**.
  - **Andhra Pradesh, Telangana and Kerala are major Oil palm growing States and account 98% of total production.**

Read more: [National Mission on Edible Oil-Oil Palm](#)

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