

## A policy paper titled “Indian Agriculture to 2047” released by ICAR-National Institute of Agricultural Economics and Policy Research (ICAR-NIAP)

It highlighted the transformation in India’s agri-food system over the **past six decades**.

### Structural Transformation in India’s Agri-food System

- **From Food-Insecure to Food-Surplus Nation:** Due to green revolution, input subsidies and minimum support prices.
- **Contribution in Economy:** Agriculture’s contribution to national income decreased from 43% to 18%, however, workforce share declined slowly from 74% to 46%.
- **Landholdings Fragmentation:** Proportion of **marginal holdings** ( $\leq 1$  hectare) rose from **51% to 68%**, and **average size shrank** from 2.28 to 1.08 hectare.
- **Diversification:** Share of animal husbandry and fisheries in agricultural GVA increased to **31%** and **7% in 2022-23**.

### Challenges to Agri-food System Transformation

- **Declining agricultural land:** Due to population growth, urbanization and industrialization.
- **Unbalanced use of fertilizers:** Due to differential subsidy rates, low nutrient use efficiency and regional disparities.
- **Inefficient water use:** Overexploitation of groundwater and low water use efficiency.
- **Climate change:** Nearly 25% reduction in agricultural productivity growth owing to extreme climate events.
- **Others:** Underdeveloped markets, credit and value chains, Cereal-centric policies etc.

### Recommendations for Sustainable Agri-Food System Transformation

- **Water Management:** Promote rainwater harvesting, groundwater recharge and micro-irrigation.
- **Reforms:** Phasing out electricity subsidies, using nano fertilizers and sustainable practices like crop rotation, intercropping etc.
- **Others:** Invest in agricultural R&D, Strengthen market infrastructure and value chains, Reform agricultural price policy etc.



## Telangana Becomes First State to Implement Scheduled Caste (SC) Sub-Categorisation

Telangana has **issued notification** that formally implements **Scheduled Caste sub-categorisation**, which will be applied in both **employment (Art.16(4)) & education (Art.15(4))**.

- This comes after a **seven-judge Constitution Bench** (in **State of Punjab vs Davinder Singh, 2024**) allowed States to further sub-classify SCs and Scheduled Tribes (STs).
- **Sub-classification of SCs:** It’s the permission to grant separate quotas for more backwards within the SC categories.

### Supreme Court’s Observation in State of Punjab vs Davinder Singh, 2024

- **Listing of castes, races, or tribes under Articles 341 & 342 (see box):** It does **not** create **homogeneous SC/ST classes** and hence internal sub-classification is permissible.
- **Article 14 and Sub-classification:** Court upholding sub-classification, ruled (6:1) that it is a facet of '**substantive equality**,' as opposed to '**formal equality**'.

☉ Thereby, overruling **EV Chinniah v. State of Andhra Pradesh (2004)** which had barred sub-classifications.

- **Sub-classification and the Presidential List:** Sub-classification doesn’t involve "inclusion" or "exclusion" of castes from the Presidential List of 1950 under Article 341, so it’s not considered "tinkering" with it.

- **Indra Sawhney and Sub-classification:** Indra Sawhney did not expressly restrict sub-classification to OBCs.

- **Judicial Review of Sub-classifications:** States cannot act according to their whims and political interests. Any state legislation creating sub-classifications must be based on data.

### Constitutional Provisions

- **Article 341:** President, after consulting the Governor, can specify castes, races, or tribes as Scheduled Castes for a State or Union Territory.
- **Article 342:** President, after consulting the Governor, can specify tribes or tribal communities as Scheduled Tribes for a State or Union Territory.

## Ministry of Mines is planning to establish Programme Management Unit (PMU)

PMU has been planned for improving the efficiency and effectiveness of District Mineral Foundation (DMF) / Pradhan Mantri Khanij Kshetra Kalyan Yojana (PMKKKY).

### About DMF

- **Mines and Minerals (Development and Regulation) (MMDR) Act 1957** provides for the establishment of DMF, in all mining affected districts, as a **non-profit body**.
- **Objective:** To work for the interest and benefit of persons and areas affected by mining related operations.
- **Composition and Functions:** Prescribed by the State Government.
  - ⊕ So far, DMFs have been set up in **645 districts** in 23 States which have framed rules.
- **Funding Mechanism:** Mining lease holders contribute to DMF a **percentage of royalty** paid.
- **Fund Utilization:** Funds under DMF are **accrued at the concerned districts** and are utilised as per the guidelines under PMKKKY.
  - ⊕ **PMKKKY** aims to implement **developmental and welfare projects/programs**, to **minimize/mitigate the adverse impacts** of mining, and ensure **sustainable livelihoods** for affected people in mining areas.
  - ⊕ PMKKKY provides for utilization of **at least 70% of the funds for high priority areas** like drinking water, pollution control, healthcare, education, welfare of women and children etc.

### Need for improving DMFs

- **Unspent Funds:** More than half remains unspent due to poor fund deployment and execution.
- **Misallocation of funds:** Infrastructure projects instead of priority areas have received the largest share of DMF spending.
- **Governance Issues:** DMFs function as extensions of the district collectorate with minimal representation of the affected communities.
- **Unstructured Investment planning:** No DMF has developed a structured annual plan.



## IMF's Global Financial Stability Report Assesses Impact of Geopolitical Risks on Global Financial Stability

According to the Report, **Global geopolitical risks** remain **elevated**, raising concerns about their potential impact for macro financial stability.

### Geopolitical Risks

- **Multiple threats to supply chains:** Geopolitical rivalries, conflict, competition for resources, cyberattacks, etc.
- **Tectonic shifts in power, economic centers and trade:** New trade alliances and investment hubs are redefining global power dynamics.
- **A fragmented tax environment.** E.g., Minimum global tax is becoming adopted by many countries, while others are withdrawing from multilateral tax policy.
- **Demographic, technological and cultural pressures on workforces:** E.g., Aging populations, mass retirement, falling birth rates (in developed markets), culture wars, AI integration, etc.

### Implications of geopolitical risks

- **Sovereign Risk:** Increased military spending and economic downturns raise **public-debt-to-GDP ratios**, escalating **fiscal sustainability** concerns and sovereign risk.
- **Financial Contagion:** Geopolitical risks can **spill over to other economies** through **trade & financial linkages**, raising the risk of contagion.
- **Macroeconomic Impact:** Increased geopolitical risk can lead to **economic disruptions**, such as **supply chain disruptions** and **capital flow reversals**.
- **Investor Confidence:** Geopolitical risks generally **lower investor confidence**, leading to **market uncertainty** and **increased volatility**.
  - ⊕ E.g., The **U.S.-China trade war** significantly impacted **stock prices in both economies**

### Key Policy Recommendations for Geopolitical Risks

- **Enhance Financial Oversight:** Policymakers should **integrate country-specific geopolitical risks** into financial institution supervision.
- **Strengthen Capital Buffers:** Financial institutions must **maintain adequate capital and liquidity** to counter geopolitical risk losses.
- **Deepen Financial Markets:** Emerging markets should **develop deeper financial markets** with **robust regulations** to hedge geopolitical shocks.
- **Maintain Macroeconomic Buffers:** Adequate fiscal space and international reserves are crucial to mitigate geopolitical event impacts.
- **Improve Crisis Preparedness:** Strengthen frameworks to manage financial instability from escalating geopolitical tensions.

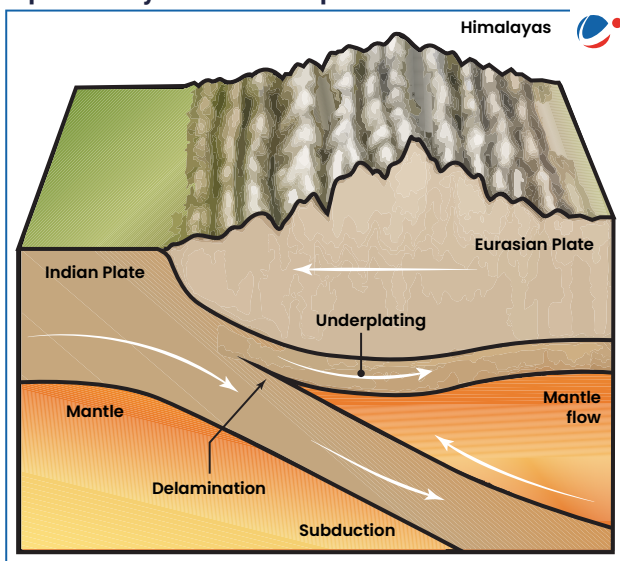
## New research suggest that Indian Continental Plate is splitting apart

Indian Continental Plate is a **major tectonic plate** bordered by **four major plates** – Eurasian Plate, Arabian Plate, African Plate, and Australian Plate.

### Movement of Indian Plate

Indian Continental Plate, which started moving northward about 60 million years ago, continues to converge with the Eurasian plate, leading to emergence of Tibetan Plateau and the Himalaya mountains.

- Traditionally, **two theories** describe the emergence of Tibetan Plateau and Himalayan Mountains.
  - ⊕ **Underplating:** As the Indian plate converges with the Eurasian plate, the denser Indian lower crust is forced to slide beneath the less dense Eurasian crust.
  - ⊕ **Subduction:** Usually, when two tectonic plates collide, the denser one usually slides beneath the other in a phenomenon called subduction.
    - ◆ However, Continental plates are thick and buoyant unlike the denser ocean plates, and do not easily subduct into the mantle during collisions.
- Recently, new research proposed a **third theory** that Indian plate might be **undergoing delamination and splitting apart** as it slides beneath the Eurasian plate.
  - ⊕ Delamination happens when a **plate's dense lower section peels away and sinks deeper** into Earth's hot mantle.



## Celebrating the 135<sup>th</sup> Birth Anniversary of Dr. B.R. Ambedkar and His Enduring Legacy

Ambedkar Jayanti, celebrated on April 14 as 'Equality Day', honors Dr. B.R. Ambedkar's contributions to **social justice, law & equality** and also, serves as a reminder to aim for the **principles of an ideal society**.

➤ Dr. Ambedkar in his seminal work 'Annihilation of Caste' had described his concept of **ideal society**.

### Dr. Ambedkar's vision of an Ideal Society

- **Society:** Ambedkar rejected Aristotelian view that society is an inherent, eternal entity, **instead, he saw society as a dynamic system of relationships, based on human interactions.**
- **Principles Laid Down by Ambedkar for an Ideal Society**
  - ⊕ **1<sup>st</sup> Principle:** **Individual as an end to himself, i.e.,** Society is not above the individual and it exists for the growth of the individual.
  - ⊕ **2<sup>nd</sup> Principle:** The way people interact together in society should be based on the values **liberty, equality, and fraternity. (See box)**
  - ⊕ **3<sup>rd</sup> Principle:** Ideal society must ensure political, economic and social justice by constitutional measures.

### Means to realise Ideal Society

- **Abolish Caste-Based Social Order:** To Use **reason and morality** as tools for reform.
- **Adopt State Socialism:** **Nationalize land and key industries** to ensure **one man one value.**
- **Ensure Political Equality:** Build a system where every individual has an equal share in power.
- **Use Constitutional Methods:** Advocate social, economic, and political restructuring through constitutional means, not violence.

### Ambedkar on Liberty, Equality, and Fraternity

- **Liberty:** Freedom from **oppression** and the **right to make choices**, including freedom of movement and profession. Ambedkar stressed **the importance of individuals choosing their roles, unlike the caste system.**
- **Equality:** A guiding principle for society. While individuals differ in **abilities, equality ensures everyone starts with the same opportunities, fostering fair competition.**
- **Fraternity:** A **sense of unity among individuals**, where people from **different backgrounds freely associate, exchange ideas, and work together.** It is essential for democracy and social cohesion.

## Also In News



### Open Network for Digital Commerce (ONDC)

ONDC gets eight interim executive committee members until the new CEO steps in.

#### About ONDC

- **Ministry:** Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry.
- **Aim:** To promote an open e-commerce network that connects shoppers, platforms and retailers **over digital or electronic networks.**
- **Concept:** ONDC is to be based on **open-sourced methodology**, using open specifications and open network protocols independent of any specific platform.
- **Significance:** ONDC will standardize operations, promote inclusion of local suppliers, drive efficiencies in logistics and lead to enhancement of value for consumers.



### Bureau of Energy Efficiency (BEE)

BEE is intensifying its enforcement of the **Standards & Labelling (S&L)** program via cracks down on fake star ratings.

#### About BEE

- Established as the **statutory body** under **Energy Conservation Act, 2001.**
- **Ministry:** Set up under **Ministry of Power.**
- **Objective:** To reduce energy intensity of Indian Economy.
- **Regulatory Functions:**
  - ⊕ Develop minimum energy performance standards for equipments and appliances under Standards and Labelling.
  - ⊕ Develop minimum energy performance standards for Commercial Buildings.
  - ⊕ Develop Energy Consumption Norms for Designated Consumers.





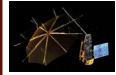
### Bonobo

A study shows that vocal communication between **Bonobos** shows compositionality, just like human language.

- **Compositionality** refers to the ability to combine **meaningful units into larger structures** whose meaning is derived from the meaning of its units and the way they are combined.

#### About Bonobo

- Bonobos and chimpanzees both share **98.7% of their DNA with humans**—making these two ape species our closest living relatives.
- **Physical Feature:** Usually a bit smaller, leaner, and darker.
- **Characteristics:** Bonobo groups tend to be **more peaceful** and are **led by females**.
- **Found:** Only in forests of **Democratic Republic of Congo (DRC)**.
- **IUCN Red List:** Status- **Endangered**.



### ESA's Biomass

**European Space Agency (ESA)** is set to launch its Biomass mission.

#### About Biomass Mission

- It will consist of a single LEO (Low Earth Orbit) satellite platform carrying the SAR (Synthetic Aperture Radar) instrument.
- Biomass is the **first satellite to carry a P-band SAR** – an innovative instrument capable of penetrating forest canopies to measure the woody trunks, branches and stems where carbon is primarily stored.
- The mission will **map the world's forests** to provide the very **first comprehensive measurements of forest biomass** and stored carbon at a global scale.



### Meningitis

**WHO** launches first-ever guidelines on meningitis diagnosis, treatment and care.

- The guidelines contribute to the broader **Defeating Meningitis by 2030 Global Roadmap (2020)**.

#### About Meningitis

- It is the **inflammation of the tissues surrounding the brain and spinal cord** and is a **major global public health challenge**.
- It can be **infectious or non-infectious in origin**: Infections are caused by many pathogens including **bacteria, viruses, fungi and parasites**.
- **Transmission:** The route of transmission **varies by organism**. Most bacteria that cause meningitis, including **meningococcus, pneumococcus and Haemophilus influenzae**, are carried in the human nose and throat.
- **Prevention:** **Vaccines** against common types of bacterial meningitis, **Antibiotics** etc.



### Gandhi Sagar Wildlife Sanctuary

Cheetah Project Steering Committee cleared the relocation of some of the cheetahs from Kuno National Park to Gandhi Sagar Wildlife Sanctuary.

#### About Gandhi Sagar Wildlife Sanctuary

- **Geographical:** Located at **eastern Madhya Pradesh**. It is spread over **two districts of Madhya Pradesh i.e. Mandsaur and Nimach**.  
⌚ This region is known as Nimar region.
- **Type:** The forest of this sanctuary is part of Khathiar-Gir **dry deciduous forest**.
- **River:** **River Chambal Passes through it**.
- **Dam:** This sanctuary is spread over the area surrounding to Gandhi Sagar dam backwater.
- **Trees:** Salai, Kardhai, Dhawda, Tendu, Palash etc.
- **Wildlife:** Wild Dogs (Dholes), Chinkara, Leopard, Otter, Mugger crocodile.
- **Historical:** It is part of the world famous **Chaturbhuj Nala rock shelters**.



### Q-Shield

Startup QNu Labs launches **world's 1<sup>st</sup> unique platform Q-Shield**.

#### About Q-Shield

- **Concept:** It enables seamless cryptography management across any environment, including cloud, on-premises, or hybrid.
- **Significance:**
  - ⌚ It provides an end-to-end solution for securing sensitive data in transit and at rest.
  - ⌚ It empowers enterprises to **protect their critical infrastructure**.
    - ◆ **Critical Infrastructure** refers to sectors whose disruption or threat could result in potentially debilitating consequences for national security, the economy, etc
    - ◆ **E.g. Communications Sector, Energy Sector etc**



### BatEchoMon

BatEchoMon, short for **Bat Echolocation Monitoring**, is **India's first automated bat monitoring system** developed at the Indian Institute for Human Settlements (IIHS), Bengaluru.

#### About BatEchoMon

- It is an **autonomous system** capable of **detecting and analysing bat calls** in real-time.
- It acts as a **Bat Detector**, a specialised recording device that can convert the ultrasonic echolocation calls of insectivorous bats into audible sounds for humans.
  - ⌚ It uses **raspberry pi microprocessor** and **convolutional neural network algorithms** to detect and identify bat species via echolocation calls.

## Personality in News



### Chettur Sankaran Nair (1857-1934)

Prime Minister remembered **Chettur Sankaran Nair** who was **sued by Lieutenant Governor of Punjab Michael O'Dwyer** for accusing him of 1919 Jallianwala Bagh massacre.

#### About Chettur Sankaran Nair

- Served as **Permanent Judge of Madras High Court** and appointed as **Secretary to the Raleigh University Commission (1902)**.
- Became a **member of the Viceroy's Council in 1915** with charge of the Education portfolio.
- Became **youngest President of the Indian National Congress (1897, Amraoti Session)**.
- **Social Reforms:** He held that those who converted to Hinduism could not be treated as outcasts in **Budasna v Fatima judgement (1914)**.  
⌚ In other cases, he upheld inter-caste and inter-religious marriages.
- **Literary Work:** Gandhi and Anarchy, Madras Review, the Madras Law Journal.



AHMEDABAD



BENGALURU



BHOPAL



CHANDIGARH



DELHI



GUWAHATI



HYDERABAD



JAIPUR



JODHPUR



LUCKNOW



PRAYAGRAJ



PUNE



RANCHI