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Telangana News Summary

TOPICS

Telangana News Summary

Telangana govt, Army signs MoU for elevated corridors

Source: New Indian Express

https://www.newindianexpress.com/states/telangana/2025/Jun/29/five-tadoba-tigers-to-be-relocated-to-telanganas-kawal-tiger-reserve

TGPSC Syllabus Relevance: Governance

Context: Elevated corridors in Secunderabad

Why in News

The Ministry of Defence and Telangana Government signed an MoU to facilitate construction of elevated corridors in Secunderabad by exchanging defence and state land for easing traffic congestion.

Introduction

- A Memorandum of Understanding (MoU) was signed between the Ministry of Defence (MoD) and the Telangana State Government to facilitate the construction of two elevated corridors from Paradise Junction to Shamirpet (SH-01) and Paradise Junction to Dairy Farm Road (NH-44).
- The move is expected to significantly ease traffic congestion in the Secunderabad Cantonment and surrounding areas.

Background:

- The MoU comes after the Ministry of Defence granted permission on March 1, 2024, for construction of the elevated corridors over A1 category defence land.
- The **Hyderabad Metropolitan Development Authority (HMDA)**, representing the State Government, signed the MoU with the Headquarters, **Telangana and Andhra Sub Area**, representing the Indian Army.
- The MoU defines the **modalities, timelines, and methodology** for transfer and exchange of land between the two entities.

Land Transfer Details:

Land Holder	Purpose
MoD (to State Govt.)	For construction of elevated corridors
State Govt. (to MoD)	In exchange, to augment defence land bank

Corridor Details:

1. Paradise Junction to Shamirpet Corridor:

- **Length:** 18.14 km
- **Route:** Paradise Junction → West Marredpally → Karkhana → Tirumulgherry → Bolarum → Alwal → Hakimpet → Thumkunta → ORR junction (Shamirpet)
- **Road Category:** State Highway (SH-01)

2. Paradise Junction to Dairy Farm Road Corridor:

- **Length:** 5.32 km

- **Route:** Paradise Junction → Secunderabad → Tadbund Junction → Bowenpally → Dairy Farm Road (NH-44)
- **Road Category:** National Highway (NH-44)

Implementation Mechanism:

- **Nodal Agency:** Hyderabad Metropolitan Development Authority (HMDA)
- **Mode:** Public–Private Partnership (PPP)
- The corridors will be developed under the **infrastructure augmentation plan** of HMDA to enhance urban mobility in Hyderabad's twin cities region.

Significance of the Project:

1. Decongestion of Traffic:

- The Secunderabad Cantonment area is **densely populated** with severe traffic bottlenecks.
- The new elevated corridors will act as **bypass routes**, thus reducing **vehicular load** on ground-level roads.

2. Strategic and Civilian Utility:

- Secunderabad is home to several **defence establishments**, making efficient transport infrastructure essential.
- The corridors will facilitate **movement of both civilian and military personnel**.

3. Enhanced Connectivity to Northern Telangana:

- Towns such as **Medchal, Shamirpet, Karimnagar**, and others will gain **faster access to the city**, benefiting daily commuters.

4. Infrastructure Modernization:

- The project contributes to the **urban infrastructure modernization** plan of Hyderabad, aligning with the **National Infrastructure Pipeline (NIP)** and **urban mobility missions**.

Legal and Administrative Aspects:

Aspect	Explanation
A1 Land	• This refers to land held by defence for **operational or training purposes**. Permission for civilian infrastructure on A1 land requires **MoD clearance**.
MoU	• Legally binding agreement defining **land exchange, construction timelines, and maintenance responsibilities**.
PPP Mode	• Ensures **private sector participation** in financing, design, construction, and maintenance under a long-term concession model.

Challenges to Address:

- **Coordination with Cantonment Board** for utility shifting and access control.
- **Environmental clearances** for elevated corridor construction.
- Ensuring **safety and minimal disturbance to defence operations** during construction.

Conclusion:

- The signing of this MoU marks a significant step toward **integrating urban development with strategic land management**.
- By leveraging defence land for civilian mobility in exchange for a larger land bank, both the **State and Defence Ministry** aim to achieve a **win-win solution**.
- The project not only alleviates traffic congestion but also exemplifies **collaborative federalism** in infrastructure development.

Five Tadoba tigers to be relocated to Telangana's Kawal Tiger Reserve

Source: New Indian Express

https://www.newindianexpress.com/states/telangana/2025/Jun/29/five-tadoba-tigers-to-be-relocated-to-telanganas-kawal-tiger-reserve

TGPSC Syllabus Relevance: Environment and Ecology

Context: Tiger Translocation to Kawal Tiger Reserve

Why in News

The Telangana Forest Department plans to translocate tigers from Maharashtra's Tadoba-Andhari Tiger Reserve to Kawal Tiger Reserve.

Introduction

- The Telangana Forest Department, in collaboration with the Maharashtra Forest Department, has initiated a plan to translocate tigers from Maharashtra's Tadoba-Andhari Tiger Reserve (TATR) to Kawal Tiger Reserve (KTR) in northern Telangana.
- This is being undertaken under the ambit of Project Tiger, with the approval of the National Tiger Conservation Authority (NTCA).
- The initiative is a response to the absence of a resident tiger population in Kawal, despite it being declared a tiger reserve in 2012.

Kawal Tiger Reserve (KTR)

- Located in **northern Telangana**, KTR spans the districts of **Mancherial**, **Adilabad**, **Nirmal**, and **Kumarambheem Asifabad**.
- Though **declared a Tiger Reserve in 2012**, the NTCA's 2022 report confirms that it **currently has no resident tigers**.
- Tigers from neighbouring reserves, such as Tadoba-Andhari, Tipeshwar, and Indravati, have migrated into KTR but failed to establish permanent territories.

Project Tiger and NTCA Involvement

- **Tado** The plan falls under the central government's **Project Tiger** initiative.
- The **NTCA** will conduct a **site inspection in July 2025** to assess habitat viability and security.

Tadoba-Andhari Tiger Reserve (TATR)

- TATR, in Maharashtra's Chandrapur district, currently supports a healthy tiger population of **over 40 individuals**.
- Tigers from TATR often migrate via the **Kagaznagar corridor** but face **natural and manmade barriers** that prevent them from reaching the core zone of KTR.

Ecological Features of Kawal

- KTR features **dense forest cover** and an **abundant prey base**, including species such as:
  - Spotted deer
  - Sambar
  - Nilgai
- However, **territorial instability** and lack of breeding pairs have prevented colonisation by migrating tigers in the

past.

- To address this, the forest department has **developed grasslands** to improve habitat conditions and support prey populations.

Proposed Translocation

- A total of five tigers are proposed to be translocated:
  - One male
  - Four females
- The goal is to establish a founder population that can breed and stabilize the ecosystem.
- This sex ratio is designed to promote genetic diversity and reproduction.

Administrative and Community Support

- Telangana's Chief Wildlife Warden, E Singh Meeru, held meetings with Maharashtra officials to formalise the translocation proposal.
- A positive response has been received, and a formal proposal has been submitted to the NTCA for final approval.
- Two villages—Maisampet and Rampur—have already been relocated, reducing anthropogenic pressure on the core area.

Challenges

- **Habitat Connectivity**
  - Despite being geographically close to tiger-rich areas, Kawal suffers from fragmented corridors, especially near the Pranahita river.
- **Human-Wildlife Conflict**
  - Local communities living near forest fringes need to be sensitised and compensated in case of livestock loss or conflict.
- **Monitoring and Protection**
  - Successful translocation demands intensive radio-collaring, continuous monitoring, and anti-poaching vigilance.
- **Genetic Viability and Territorial Behaviour**
  - Tigers are territorial animals. Without sufficient space or if relocated individuals do not adapt, conflict or dispersal may occur.

Significance of the Initiative

Dimension	Implication
Conservation	Revives a dormant tiger reserve and contributes to species recovery.
Ecology	Rebalances predator-prey dynamics in a rich forest ecosystem.
Federal Cooperation	Reflects strong inter-state collaboration between Telangana and Maharashtra.
Project Tiger Goals	Reinforces NTCA's mission to expand and stabilise India's tiger population.
Sustainable Relocation	Demonstrates planned community relocation for wildlife conservation.

Way Forward

- Approval from NTCA and implementation of standard translocation protocols
- Continued habitat improvement and buffer zone development
- Community engagement through eco-development programs
- Establishment of long-term ecological

monitoring systems
- Scientific review after each breeding cycle to evaluate successs

Conclusion

- The proposed translocation of tigers to Kawal Tiger Reserve is a **strategic, science-backed conservation initiative** that reflects India's evolving wildlife management practices.
- If executed successfully, it can transform Kawal into a vibrant tiger landscape, contribute to regional biodiversity, and serve as a model for restoring tiger populations in low-density areas across the country.

MeeSeva launches market value, marriage registration services in Telangana

Source: New Indian Express

https://www.newindianexpress.com/states/telangana/2025/Jul/01/meeseva-launches-market-value-marriage-registration-services-in-telangana

TGPSC Syllabus Relevance: Governance

Context: Digital Governance Push in Telangana

Why in News

Telangana's MeeSeva platform has launched market value certification and online marriage registration services to improve transparency and citizen convenience.

Introduction

- In a significant step towards enhancing citizen-centric digital governance, the Telangana government has introduced *market value certification* and *marriage registration with online slot booking* through its flagship e-governance platform **MeeSeva**.
- The move follows directives issued by the state's IT and Industries Minister, **D. Sridhar Babu**, and aims to boost convenience, transparency, and reduce bureaucratic hurdles.

What is MeeSeva?

- MeeSeva (meaning "At Your Service") is an integrated e-governance initiative by the Government of Telangana, designed to provide multiple government-to-citizen (G2C) and business-to-citizen (B2C) services under one digital roof.
- It aims to make services faster, more transparent, and minimize physical interface between citizens and government offices.

Key Services Launched

1. Market Value Certification

- **Objective:** Provide quick access to land and property valuation certificates.
- **Application Process:**
  - Citizens can apply **online or at MeeSeva centres**.
  - Applicants must submit details of **district and village**.
  - Applications are processed by the **Sub-Registrar Office (SRO)**.
- **Turnaround Time:** Certificates will be issued **within 24 hours**.

- **Benefits:**
  - Reduces time taken to obtain market valuations for land and apartments.
  - Facilitates legal and financial transactions by providing official property valuations quickly.

2. Marriage Registration with Slot Booking

- **Objective:** Simplify and digitize marriage registration procedures.
- **Application Process:**
  - Applicants must upload **wedding photographs**, **residential proof**, and **age certificates** online.
  - An **online slot booking system** is introduced to fix appointment dates for document verification.
  - Verification and certification are done by the **SRO**.
- **Benefits:**
  - Reduces the need for multiple in-person visits.
  - Prevents delays caused by overbooking or procedural ambiguity.

Broader E-Governance Context

Integration with Other Departments:

- MeeSeva has already integrated services from departments such as:
  - **Road Transport Authority (RTA)**
  - **PAN services**
  - **Sand booking system**
- These integrations streamline inter-departmental processes and create a single-window service platform for citizens.

Future Plans:

- **T-Fiber Rollout:** Expansion of high-speed broadband connectivity to all households in the state, ensuring last-mile delivery of e-services.
- **Increased Kiosk Coverage:** Plans to set up **additional MeeSeva centres and kiosks**, especially in rural and remote areas, for improved accessibility.
- **Service Expansion:** More government services are expected to be digitized and linked to MeeSeva to widen the platform's utility.

Significance for Governance and Citizens

- **Transparency and Efficiency:** Eliminates discretionary decision-making and speeds up processing.
- **Convenience:** Citizens can access services from home or nearby centres, saving time and effort.
- **Reduction in Red Tape:** Direct digital interface minimizes delays and dependency on intermediaries.
- **Inclusivity:** Particularly beneficial for rural and underprivileged populations who face difficulty accessing government offices.

Conclusion

- The addition of market value certification and marriage registration services to the MeeSeva platform marks another milestone in Telangana's digital governance journey.
- By simplifying administrative processes, reducing physical dependencies, and ensuring timely service delivery, the initiative reinforces the state's commitment to *citizen empowerment through technology*.
- As Telangana continues to roll out projects like T-Fiber and expand MeeSeva services, the goal of a digitally inclusive and efficient government moves closer to realization.

Appointment of Director of Defence Electronics Research Laboratory (DLRL-DRDO)

Source: Telangana Today

https://telanganatoday.com/k-murali-an-outstanding-scientist-appointed-director-of-dlrl-hyderabad

TGPSC Syllabus Relevance: Governance

Context: Director of Defence Electronics Research Laboratory (DLRL-DRDO)

Why in News

K Murali has been appointed as the Director of DRDO's Defence Electronics Research Laboratory (DLRL), a key lab specializing in Electronic Warfare Systems.

Introduction

- **K Murali**, a senior and accomplished scientist, was appointed as the **Director of the Defence Electronics Research Laboratory (DLRL)**, a premier establishment under the **Defence Research and Development Organisation (DRDO)**. He succeeds **N Srinivas Rao**, who retired on June 30 after an illustrious tenure.

About DLRL

- The **Defence Electronics Research Laboratory (DLRL)** is a premier laboratory functioning under the **Defence Research and Development Organisation (DRDO)**, Ministry of Defence, Government of India.
- It is headquartered in **Hyderabad**, Telangana.
- DLRL is primarily tasked with the **design, development, and deployment of Electronic Warfare (EW) systems** for India's Armed Forces. Its goal is to ensure India's superiority in the **electromagnetic spectrum domain**, a critical component of modern and future warfare.
- It plays a **critical role in the design and development of Electronic Warfare (EW) Systems** for the Indian Armed Forces.
- Over the past six decades, DLRL has:
  - Developed and delivered **Integrated EW Systems** to the **Tri-services** (Army, Navy, and Air Force).
  - Enhanced national capabilities in **electromagnetic spectrum warfare**, which is vital for modern and future battlefields.

About K Murali: A Profile in Scientific Leadership

Educational Background

- **B.Sc.** from **Osmania University**, Hyderabad (1988)
- **M.Sc. in Computer Science Engineering** from the **University of Mysore**, Karnataka (1990)

Career Path

- Joined DRDO as **Scientist–B** in **DLRL**, Hyderabad.
- Over the years, he has served at **various levels** within the lab, contributing significantly to:
- **Design and development** of critical EW

systems

- **Productionisation** and **field deployment** of technologies
- Development of **RF Seekers** and **Counter-Drone Systems**
- Strengthening India's **self-reliance in defence electronics**

Research and Industry Engagement

- Played a pivotal role in steering **futuristic R&D programmes**
- Fostered collaborations with **academia and industry partners** for joint research
- Encouraged the integration of **cutting-edge innovations** into operational defence systems

Relevance and Implications

1. Strengthening Defence R&D Ecosystem

- Murali's appointment is expected to further energize **indigenous capability development** in critical areas like electronic warfare, drone countermeasures, and spectrum dominance.

2. Focus on Self-Reliance (Atmanirbhar Bharat)

- His leadership aligns with India's broader goal of achieving **technological self-sufficiency** in defence systems under the **'Make in India'** and **'Atmanirbhar Bharat Abhiyan'** initiatives.

3. Enhancing Civil-Military Synergy

- His emphasis on **academia-industry partnerships** reflects a model of **civil-military R&D collaboration**, essential for long-term defence innovation.

Telangana unveils first State-led digital public infrastructure for AI

Source: The Hindu

https://www.thehindu.com/news/cities/Hyderabad/telangana-unveils-first-state-led-digital-public-infrastructure-for-ai/article69765408.ece

TGPSC Syllabus Relevance: Science and Technology

Context: Telangana Data Exchange (TGDeX)

Why in News

Telangana launched TGDeX, India's first state-level AI data exchange platform, to democratize access to datasets, compute infrastructure, and innovation pathways.

Introduction

- The **Telangana Government** has launched a pioneering platform named **Telangana Data Exchange (TGDeX)** on July 3, 2025, with the aim of addressing key bottlenecks in AI innovation, including access to clean datasets, affordable compute infrastructure, and pathways to scale solutions beyond the proof-of-concept stage.
- The platform was unveiled by the **State IT and Industries Minister D. Sridhar Babu**.

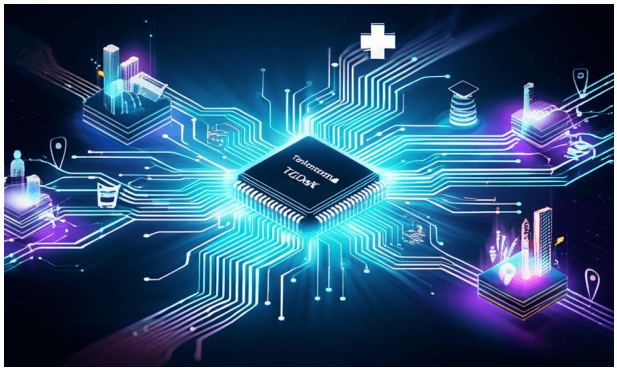
What is TGDeX?

- **TGDeX** is India's **first-of-its-kind state-level platform** designed to enable data-driven innovation in AI and emerging technologies.
- It is a secure, scalable, and interoperable infrastructure that aims to democratize access to AI development tools and data

reSources.

Key Objectives

- **Access to Quality Data**: Provide startups, researchers, and developers with access to over **500 curated datasets** from government departments.
- **Inclusion and Equity**: Bridge urban-rural divides by enabling AI startups from smaller towns like **Adilabad** to access the same reSources as those in tech hubs like **Hyderabad**.
- **Innovation at Scale**: Facilitate institutional support for startups to scale from proof-of-concept to real-world deployment.
- **Public Good Orientation**: Promote ethical AI for public good by involving academic and civil society institutions.



Development and Collaborations

- Developed by the **Emerging Technologies Wing** of the Telangana IT Department.
- Supported strategically by:
  - Japan International Cooperation Agency (JICA) – through its DXLab.
  - Boston Consulting Group (BCG)
  - Center of Data for Public Good
  - Indian Institute of Science (IISc) Bengaluru
- Ecosystem enablers include **T-Hub** and **Telangana AI Mission (T-AIM)**, offering:
  - Mentorship
  - Funding Access
  - Market Linkages via initiatives like the **'Grand Challenges'**.

Significance and Future Vision

- **Policy Impact**: A **White Paper** co-authored by the Telangana Government and JICA was launched to document the TGDeX journey and serve as a **blueprint for other Indian states and countries in the Global South**.
- **National Model**: TGDeX is intended as a **replicable model** for building *inclusive AI ecosystems* at sub-national levels.
- **Department Integration**: Over **20 state departments** are already contributing data; full coverage is targeted in the coming months.
- **Private and Academic Participation**: Future integration of **private sector** and **academic datasets** is planned to enrich the platform.

TGDeX in Action: Telangana AI Rising Grand Challenge

- As a pre-launch initiative, the **Telangana AI Rising Grand Challenge** was held.
- **240 startups** submitted over **420 proposals**.
- **Six winners** were felicitated at the launch event, highlighting the platform's potential to empower grassroots innovation.

CSIR-CCMB scientists unravel biodiversity changes down south over millions of years

Source: The Hindu

https://www.thehindu.com/news/national/te

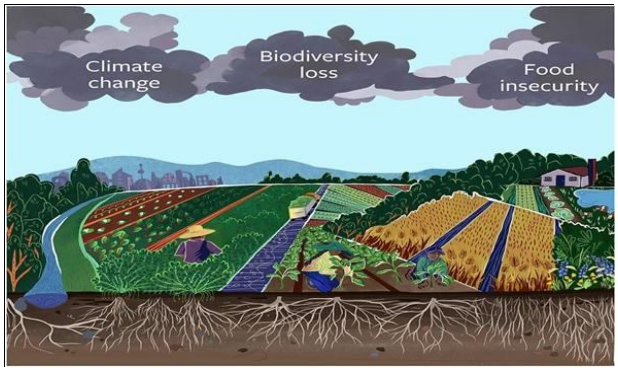
langana/csir-ccmb-scientists-unravel-biodiversity-changes-down-south-over-millions-of-years/article69764736.ece

TGPSC Syllabus Relevance: Environment and Ecology

Context: Biodiversity and Speciation in Peninsular India

Why in News

A CCMB study traces patterns of speciation and extinction in Peninsular India.



Introduction

- A recent study led by Dr. Jahnavi Joshi's team at the CSIR-Centre for Cellular & Molecular Biology (CCMB), published in *Ecology Letters*, sheds light on the evolutionary history of biodiversity in Peninsular India.
- By analysing 33 animal and plant groups using mathematical models, the study uncovers patterns of **speciation and extinction** in South Asia, particularly Peninsular India, a region recognized as a **global biodiversity hotspot**.

Peninsular India: A Biogeographic Overview

- Located in **tropical South Asia**, Peninsular India includes ecological zones like:
  - Aravalli Mountains
  - Vindhyas
  - Eastern Ghats
  - Deccan Plateau
  - Western Ghats (a UNESCO World Heritage site and global biodiversity hotspot)
- It harbours **high levels of endemism**, i.e., species that are found **nowhere else on Earth**.

Evolutionary Patterns of Biodiversity: Key Findings

1. Diverse Trajectories of Speciation

- **Speciation** refers to the formation of new species from a common ancestor.
- The study traced how species evolved and spread across Asia using 33 well-studied life groups, including reptiles, amphibians, birds, and plants.
- Findings show **heterogeneity** in how species diversified:
  - Some groups evolved **steadily over millions of years**.
  - Others had **fluctuating rates** of species formation and extinction.

2. Role of Ecosystem Stability

- The **stability of tropical forests** in Peninsular India played a major role in **gradual accumulation of biodiversity**.
- Despite drastic **geo-climatic changes**, the region remained a **refuge** for many species, particularly in the **Western Ghats** and **Eastern Ghats mountaintops**.

3. Geo-Climatic History and Biodiversity Resilience

- India was once part of **Gondwanaland**, along with present-day Africa and Australia.
- After breaking away (~100 million years ago), it drifted north and collided with Asia, forming the Himalayas.
- Despite these upheavals, Peninsular India's ecosystems showed **remarkable**

resilience, maintaining **steady biodiversity patterns**.

Impact of Past Climate Change

Period: 11 to 3 Million Years Ago

- Marked by:
  - High aridification
  - Seasonal monsoon intensification
  - Expansion of grasslands
  - Contraction of evergreen forests
- These changes caused:
  - Habitat fragmentation
  - Range shifts in species
  - Disruption in earlier evolutionary trends

Observations:

- Evolutionary lineages like **lizards and amphibians** showed **abrupt changes** in species formation during this period.
- The **Earth's temperature** was found to be a strong driver of **speciation and extinction dynamics**.

Significance for Conservation Policy

The study provides **empirical evidence** linking:

- Long-term **climate patterns**
- **Ecosystem stability**
- **Biodiversity resilience**

Conservation Implications:

- **Identifying evolutionary hotspots** helps prioritize areas for protection.
- Helps in formulating **adaptive conservation strategies** considering ongoing:
  - **Climate change**
  - **Anthropogenic pressures** (deforestation, habitat fragmentation, land use change)
- Strengthens **ecosystem-based approaches** for managing biodiversity in regions like the Western Ghats.

Conclusion

- The findings emphasize the **resilience and uniqueness** of biodiversity in Peninsular India, shaped by millions of years of evolutionary processes.
- As climate change and human activity increasingly threaten these ecosystems, studies like this offer **critical insights** for **evidence-based conservation planning**.
- Preserving these ecological legacies is not only vital for India but also for the **global environment and biodiversity heritage**.

India's first transgender clinic reopens in Hyderabad with aid from Tata Trusts

Source: The Hindu

https://www.thehindu.com/news/cities/Hyderabad/indias-first-transgender-clinic-in-hyderabad-reopened-tata-trusts-revives-facility-shut-after-usaid-froze-funds/article69767242.ece

TGPSC Syllabus Relevance: Social Issues

Context: Sabrang Clinic

Why in News

India's first transgender-led health clinic has resumed operations under the new name Sabrang Clinic.

Background and Significance

Launched in **2021** in **Narayanguda, Hyderabad**, the **Mitr Clinic** marked a milestone in inclusive public health:

- It was **India's first health clinic entirely led and managed by transgender persons**.
- Staff roles, from doctors to clinic

managers, were filled by individuals from the **transgender community**, ensuring a **safe, stigma-free space** for patients.

- The clinic served **over 3,000 patients** before its temporary closure.

The clinic not only provided essential healthcare but also symbolised **empowerment through representation**, where marginalised communities took ownership of service delivery.

Services Offered

The clinic provides **comprehensive and inclusive healthcare services** for transgender and LGBTQIA+ communities:

- General health care
- Mental health counselling
- Clinical consultation on:
  - Hormone Replacement Therapy (HRT)
  - Gender Affirmation Surgeries
  - Breast Augmentation
- HIV/STI treatment and prevention
- Psychological support and community outreach

The USAID Funding Freeze and Shutdown

- In **January 2025**, the clinic was forced to shut down after USAID (United States Agency for International Development) **froze funding**, halting the ₹1,900 per person per year support.
- This left many from the transgender and LGBTQIA+ community without **access to trusted, non-discriminatory healthcare**.
- Despite closure, the clinic continued **online consultations and medicine delivery** during the funding gap.

Revival as Sabrang Clinic

- **New Name**: *Sabrang* (meaning *all colours*), reflecting a broader vision of **inclusive healthcare beyond transgender communities**, encompassing all queer, gender-diverse, and marginalised groups.
- **New Funding**:
  - In **April 2025**, **Tata Trusts** committed to supporting the clinic at **₹1,500 per person per year** for 3 years.
  - **YRG Care**, a Chennai-based NGO, also joined to support **senior staff salaries**.
- **Reopened** in **May 2025** with core team positions retained.

Government Response and Maitri Clinics

- Inspired by the Mitr model, the **Telangana government** launched **Maitri Clinics** in **all 33 districts**, designed to be **trans-inclusive** and draw on community-based healthcare models.
- Although Sabrang Clinic could have joined the State system, the team chose an **independent relaunch** to avoid delays and preserve **community-led governance** and trust networks.

Why It Matters: Policy and Social Implications

1. Community Empowerment and Representation

- Sabrang Clinic is not just a healthcare

facility but a model of **community-led service delivery**, enhancing dignity, employment, and participation of transgender persons in public systems.

2. Gaps in Public Health Inclusion

- The initial shutdown revealed **vulnerabilities of donor-dependent models** and the **absence of robust, state-supported, inclusive health infrastructure** for LGBTQIA+ persons.

3. Model for Replication

- The clinic serves as a **replicable model** for other Indian states aiming to create **inclusive, non-judgmental healthcare ecosystems**.
- It bridges the gap between **policy commitments** to trans welfare and actual **service delivery**.

International Angle: Impact of USAID Funding Freeze

- The freeze on USAID funding affected not only Mitr Clinic but also other **community-based health projects across the Global South**.
- It highlights the **geopolitical vulnerabilities** of social welfare programmes **reliant on external aid**.
- The incident underscores the importance of **local philanthropy, CSR support, and state financing** for sustainable development.

Way Forward

1. **Mainstreaming Trans-led Health Models**:
   Governments should integrate such models into **public health infrastructure** through partnerships, funding, and training.
2. **Funding Diversification**: Clinics like Sabrang must build **financial resilience** through a combination of **philanthropy, government support, and community fundraising**.
3. **Legal and Policy Backing**: Robust implementation of **Transgender Persons (Protection of Rights) Act, 2019**, especially in healthcare, education, and employment sectors.
4. **Community Capacity Building**: Train more transgender and queer individuals as **healthcare professionals, administrators, and outreach workers**.

Telangana treading cautiously on market borrowings

Source: The Hindu

https://www.thehindu.com/news/national/telangana/telangana-treading-cautiously-on-market-borrowings-it-raised-17400-crore-in-first-quarter

TGPSC Syllabus Relevance: Economy

Context: Telangana market borrowings

Why in News

The Telangana government plans to raise ₹11,000 crore through market borrowings in Q2 FY 2025 due to reduced borrowing limits by the Centre and rising interest liabilities.

Introduction

- The **Telangana Government has proposed to raise ₹11,000 crore** through market borrowings during the **second quarter (July–September) of FY 2025–26**, significantly lower than the ₹17,400 crore raised in the first quarter.
- The cautious borrowing approach is influenced by **Union-imposed borrowing limits, fiscal restructuring**, and a rising **interest payment burden**.

What are Market Borrowings by State Governments?

- **Market borrowings** refer to funds raised by state governments through the sale of **State Development Loans (SDLs)**—government securities issued in the market.
- These securities are subscribed by banks, financial institutions, insurance companies, and other investors.
- The **Reserve Bank of India (RBI)** manages the auction of these SDLs on behalf of state governments.
- These borrowings are a key tool for states to meet their **fiscal deficits** and finance **developmental schemes**.

Why are market borrowings raised?

- This is a key method for States to finance their fiscal deficits and fund various developmental activities. State Development Loans are now categorised as State Government Securities.

What are consolidated sinking and guarantee redemption fund?

- State governments have to deposit a certain amount with Reserve Bank of India under the consolidated sinking fund and guarantee redemption fund mandatorily. If a State government defaults on the loan payments, money is deducted from these funds.

Breakup of Telangana's Q2 Borrowing Plan

As per the **RBI's indicative calendar of borrowings**, Telangana plans to raise:

- ₹4,500 crore in July (in 4 tranches; ₹1,500 crore already raised on July 1)
- ₹3,500 crore in August (in 3 auctions)
- ₹3,000 crore in September (in 3 auctions) This totals ₹11,000 crore for the second quarter of FY 2025–26.

Comparison with Q1 Borrowings

- In **April–June 2025**, Telangana raised ₹17,400 crore.
- A major part of the funds were directed towards **Rythu Bharosa**, the state's flagship **investment support scheme for farmers**.
- The current reduced borrowing is a response to **fiscal limitations** and stricter borrowing caps set by the Union government.

Why is Telangana Treading Cautiously?

1. **Union Finance Ministry's Borrowing Cap**
   - The state had initially projected total borrowings of ₹69,539 crore for FY 2025–26, including ₹64,539 crore through open market borrowings.
   - However, this was **cut to ₹54,009 crore**, as per provisional data from the **Comptroller and Auditor General (CAG)**.
   - This forced the state to **restructure its debt strategy** and reassess its borrowing needs.
2. **Rising Interest Payment Burden**
   - Telangana spent **₹4,166 crore towards interest payments** by the end of May 2025.
   - This constitutes **21.51% of the ₹19,639 crore** estimated for the full

year, highlighting pressure on the state's finances early in the fiscal.

3. **Statutory Financial Obligations**
   - The state must maintain contributions to the **Consolidated Sinking Fund** and the **Guarantee Redemption Fund**, managed by the RBI.
   - These funds act as safety mechanisms—**RBI can deduct repayments from these reserves** if the state defaults on debt repayments.

What are the Consolidated Sinking Fund and Guarantee Redemption Fund?

- **Consolidated Sinking Fund (CSF):**
  - A reserve maintained by the state with the RBI to meet **future repayment obligations**.
  - Acts as a buffer to ensure repayment even if fiscal pressure arises.
- **Guarantee Redemption Fund (GRF):**
  - Used to service **guarantees extended by the state** to public sector undertakings (PSUs) and other bodies in case of default.
  - Reduces fiscal risk from off-budget borrowings.

Conclusion

- Telangana's decision to scale down its market borrowings in Q2 FY 2025–26 reflects a **prudent fiscal approach** in response to **Union-imposed borrowing restrictions**, rising **interest liabilities**, and the need to comply with **statutory reserve norms**.
- As states grapple with funding welfare schemes and developmental projects, efficient **debt management and fiscal discipline** will be critical to sustaining economic stability.

Olympic gold medallists to get Rs six crore, promises new sports policy

Source: New Indian Express

https://www.newindianexpress.com/states/telangana/2025/Jul/04/olympic-gold-medallists-to-get-rs-six-crore-promises-new-sports-policy

TGPSC Syllabus Relevance: Sports

Context: Telangana Sports Policy 2025

Why in News

The Telangana Sports Policy 2025, launched by the state government, aims to transform Telangana into a national hub for sporting excellence.

Introduction

- In an ambitious push to elevate the state's sports ecosystem, the Telangana government unveiled the **Telangana Sports Policy 2025** with the vision to make the state a **"Centre of Champions."**
- This policy integrates infrastructure development, athlete welfare, digital outreach, education-based sports integration, and public-private partnerships (PPPs) to build a sustainable, inclusive, and competitive sports culture.

Key Objectives of the Policy

- Position Telangana as a **leading state in sports excellence**.
- Create a **holistic and inclusive sports ecosystem**.
- Institutionalize sports as a core element of **education and lifestyle**.
- Develop a **world-class infrastructure**

and attract private investment.

- Support athletes **across all stages** — from grassroots to elite level.

RICH REWARDS

COMPETITIONS	GOLD	SILVER	BRONZE	PARTICIPATION
Olympics, Paralympics	₹6 crore	₹4 crore	₹2.5 crore	₹15 lakh
Youth Olympics	₹1 crore	₹65 lakh	₹40 lakh	₹2.5 lakh
C'wealth, Para C'wealth Games	₹1.5 crore	₹75 lakh	₹50 lakh	₹7.5 lakh
Youth C'wealth Games	₹25 lakh	₹12.5 lakh	₹8 Lakh	NIL
Asian/Para Asian Games	₹3 crore	₹1.5 crore	₹75 lakh	₹7.5 lakh
Youth Asian Games	₹50 lakh	₹25 lakh	₹15 lakh	NIL
Special Olympics	₹50 lakh	₹30 lakh	₹20 lakh	₹5 lakh
Deaflympics	₹1.2 crore	₹80 lakh	₹40 lakh	₹2.5 lakh
World Cup, World Championship, Para World Games, Para World Cup, Para World Championship (once in four years cycle)	₹1.5 crore	₹75 lakh	₹50	₹10 lakh
World Cup, World Championship, Para World Cup, Para World Championship (once in 2 years cycle)	₹75 lakh	₹50 lakh	₹30 lakh	NIL
World Cup, World Championship, Para World Games, Para World Championship (annual)	₹50 lakh	₹30 lakh	₹20 lakh	NIL
SAF Games	₹7 lakh	₹5 lakh	₹3 lakh	NIL
SAF Jr Games	₹7 lakh	₹5 lakh	₹3 lakh	NIL
National, Para National Games	₹5 lakh	₹3 Lakh	₹2 lakh	NIL
Khelo India	₹2 lakh	₹1.50 lakh	₹1 lakh	NIL
IBSA World Games	₹60 lakh	₹40 lakh	₹20 lakh	NIL
World University Games	₹7 lakh	₹5 lakh	₹3 lakh	NIL
Asian / C'wealth Championship / Cup	₹25 lakh	₹15 lakh	₹10 lakh	NIL
Blind Cricket World Cup	₹25 lakh	₹15 lakh	₹10 lakh	NIL

Salient Features of Telangana Sports Policy 2025

1. Cash Incentives for Olympic and Paralympic Medalists

- **₹6 crore** for Gold medal winners.
- **₹4 crore** for Silver medal winners.
- **₹2.5 crore** for Bronze medal winners.
- Applies to both **Olympic and Paralympic athletes**.

2. The Sports Hub of Telangana

- A central umbrella organization to oversee:
  - **Policy implementation**
  - **Infrastructure development**
  - **Sports education**
  - **Training and funding allocation**
- Governed by a **Board of Governors** comprising experts from diverse fields.

3. Public-Private Partnership (PPP) Model

- PPP adopted to **develop and maintain sports infrastructure**.
- **Preferred venue status** for government events granted to PPP-built venues.
- Up to **30% of site potential** allowed for **non-sporting commercial activities** to ensure financial viability.
- Facilities to remain accessible from **grassroots to elite athletes**.

4. Annual Sports Awards

- To recognize outstanding contributions by:
  - **Athletes**
  - **Coaches**
  - **Schools**
  - **Corporate partners**
  - **Journalists**

5. Consolidated Tournament Calendar

- Coordinated with **recognized sports associations**.
- Integrated with the **Chief Minister's Cup** to promote organized competitive structures across districts.

Integration of Sports with Education

- Sports and **physical literacy embedded** into school and college curricula.
- Mandatory sports participation for all students, irrespective of background.
- Regular **Physical Education classes** to introduce students to multiple sports.
- Implemented in collaboration with the **Department of Education** and **YIPESU (Youth Initiative for Physical Education and Sports University)**.

Digital Outreach and Public Campaigns

- Use of **digital platforms** to:
  - Promote sports participation.
  - Reach **remote and underserved**

communities.

- Partnerships with **sports icons** to lead awareness campaigns and increase community engagement in physical activity.

Welfare and Rehabilitation of Veteran Athletes

- **Pension support** for veteran athletes and coaches who have made significant contributions.
- Opportunities for veterans to:
  - Transition into **coaching and mentoring roles**.
  - Participate in the creation of a **strong sports knowledge and coaching ecosystem**.

Significance of the Policy

1. **Economic and Social Impact**
   - Encourages youth participation and career development in sports.
   - Attracts investment in infrastructure through PPP, boosting local economies.
2. **Promotion of Inclusive Development**
   - Equal focus on **Paralympic athletes**, rural outreach, and school integration ensures wide accessibility.
3. **Institutional Reform**
   - The creation of a **governing board and centralised Sports Hub** introduces **strategic and accountable governance**.
4. **Alignment with National Goals**
   - Complements **Khelo India** and **Fit India Movement**, reinforcing national efforts in developing a sporting culture.

Challenges and Way Forward

- **Monitoring Implementation**: Establish independent oversight bodies to monitor delivery of infrastructure and benefits.
- **Maintaining Accessibility**: Ensure that commercialisation of facilities under PPP does not restrict access for grassroots users.
- **Capacity Building**: Invest in training quality coaches and sports administrators to sustain the ecosystem.
- **Rural Focus**: Special attention to **rural and tribal talent identification and training** through mobile units and local centres.

Conclusion

- The **Telangana Sports Policy 2025** marks a **visionary leap** toward creating a sports-centered society that is inclusive, professionally managed, and globally competitive.
- By combining financial incentives, infrastructure development, education, and governance reforms, Telangana aspires to lead the way in making India a **sporting superpower**.
- The success of this model could guide other Indian states towards similar integrated and non-discriminatory sports development strategies.

Telangana allows commercial establishments to raise work hours to 10

Source: New Indian Express

https://www.newindianexpress.com/states/telangana/2025/Jul/06/telangana-allows-commercial-establishments-to-raise-work-hours-to-10

TGPSC Syllabus Relevance: Governance

Context: Work Hour Norms

Why in News

Telangana has amended work-hour norms for commercial establishments (excluding shops) under its Ease of Doing Business (EoDB) reforms.

Introduction

- As part of the **Ease of Doing Business (EoDB)** reforms, the **Government of Telangana** has permitted an increase in daily work hours for employees in **commercial establishments (excluding shops)** from **8 to 10 hours**, while retaining the **weekly cap at 48 hours**.
- The order was issued by **Principal Secretary of Labour, Employment, Training and Factories, M Dana Kishore**, aligning Telangana with recent labour reforms adopted in **Andhra Pradesh and Tamil Nadu**.

Legal Basis:

- The order invokes **Section 73(4)** of the **Telangana Shops and Establishments Act, 1988**, exempting commercial establishments (excluding shops) from:
  - **Section 16** (which prescribes daily work hours)
  - **Section 17** (which prescribes intervals for rest)

Key Features of the Order:

1. **Extended Daily Work Hours:**
   - **Daily limit increased to 10 hours** (from 8)
   - **Weekly limit remains at 48 hours**
2. **Overtime Regulations:**
   - Work beyond 48 hours per week is permitted on **overtime pay**
   - Capped at **144 overtime hours per quarter**
   - Employers must compensate overtime as per applicable labour laws
3. **Rest Period Requirements:**
   - **Mandatory 30-minute break** if the employee works more than 6 hours
   - Total work period including breaks **shall not exceed 12 hours per day**
4. **Voluntary Nature and Employee Consent:**
   - The 10-hour workday is **optional for employees**, not mandatory
   - Employers must ensure no coercion in implementing extended hours
5. **Revocation Clause:**
   - The **exemptions may be revoked at any time** by the government **without prior notice** in case of **non-compliance** with any of the prescribed conditions

Significance:

- **Business Flexibility:** Supports operational flexibility for businesses, particularly in **IT, logistics, manufacturing, and hospitality sectors**
- **Labour Productivity:** Aims to enhance labour productivity without breaching internationally accepted norms (weekly cap remains 48 hours)
- **Investor Confidence:** Aligns with **EoDB**

benchmarks of the **Government of India**, making Telangana more attractive for **investors and industries**

- **Labour Welfare Safeguards:** Retains essential labour protections including **rest intervals**, **weekly work-hour cap**, and **overtime provisions**

Concerns and Considerations:

- **Fatigue and Burnout:** Longer daily hours may cause physical and mental fatigue, particularly in physically intensive roles
- **Voluntariness Enforcement:** Monitoring whether the 10-hour workday is genuinely **voluntary** may be challenging in practice
- **Urban Worker Impact:** The policy could have mixed effects depending on the **nature of employment**, especially in informal sectors

'Safety Club' launched in educational institutes to foster student empowerment

Source: The Hindu

https://www.thehindu.com/news/cities/Hyderabad/safety-club-launched-in-educational-institutes-to-foster-student-empowerment/article69783569.ece

TGPSC Syllabus Relevance: Education

Context: 'Safety Club' Initiative

Why in News

The Hyderabad Police, in collaboration with the Telangana government and educational institutions, launched the 'Safety Club' initiative.

Introduction

- The Hyderabad Police, in collaboration with the Telangana government and civil society, launched the **'Safety Club' initiative** to promote student safety through awareness, empowerment, and participatory engagement in educational institutions.
- In an era marked by increasing digital risks, mental health challenges, and substance abuse among youth, the **Hyderabad Police**, along with the **Telangana State Government, NGOs, and educational institutions**, unveiled the **'Safety Club' initiative** on **July 7, 2025**, at **A.V. College, Hyderabad**.
- This proactive initiative seeks to **institutionalize student safety** by blending law enforcement, pedagogy, parental involvement, and peer-led participation into a **community-driven safety framework**.

Vision and Objectives

The Safety Club initiative is rooted in a **preventive and empowering approach**, aiming to:

- Promote **physical, digital, emotional, and social safety** of students.
- Equip students with **critical life skills** such as decision-making, assertiveness, and civic responsibility.
- Engage students not merely as beneficiaries, but as **active stakeholders**

in their own safety ecosystem.

Structural Framework of Safety Clubs

Each educational institution will establish a Safety Club with defined roles and responsibilities:

Role	Responsibility
Chairperson	Principal – oversees all safety-related efforts
Convener (Balamitra)	A designated teacher who leads safety awareness activities
Safety Guide	A parent volunteer responsible for mentoring and community linkage
Safety Advocates	Selected student volunteers trained to lead peer initiatives

Key Activities Planned

- **Monthly Reviews & Safety Walks:** Regular safety audits and walkthroughs to assess on-campus safety environments.
- **Cyber Safety Campaigns:** Awareness on online privacy, cyberbullying, and safe social media usage.
- **Anti-Drug Drives:** Sessions with de-addiction experts, rehabilitation pathways, and awareness of legal consequences.
- **Mental Health Weeks:** Peer support networks, emotional resilience workshops, and access to counsellors.
- **Legal Literacy and Rights Awareness:** Sessions with law enforcement and legal professionals on rights, reporting abuse, and safety laws.
- **Digital Detox Programs:** Family-oriented sessions promoting screen-time balance and real-world engagement.

Core Focus Areas

1. **Physical Safety:** Securing campuses through risk assessment, community policing, and vigilance.
2. **Cyber Safety:** Building awareness on cyber threats, phishing, stalking, and data protection.
3. **Substance Abuse Prevention:** Early intervention through education and peer-led campaigns on drug misuse.
4. **Mental and Emotional Well-being:** Reducing stigma around mental health, providing safe spaces, and integrating social-emotional learning.

Relevance to Governance and Society

Dimension	Contribution of the Safety Club Initiative
Good Governance	Integrates citizen participation and transparency in school-level governance
Youth Empowerment	Develops leadership, accountability, and resilience among students
Preventive Policing	Shifts focus from punitive to awareness-based community policing
Public-Private Partnership	Collaboration between police, schools, families, and NGOs
Mental Health Advocacy	Mainstreams emotional well-being and destigmatizes mental health discussions

Challenges and Way Forward

- **Sustainability:** Ensuring continued engagement beyond pilot schools.
- **Inclusivity:** Expanding to rural and government schools with reSource

constraints.

- **Training:** Regular capacity-building for teachers, volunteers, and student advocates.
- **Feedback Mechanisms:** Building robust, anonymous reporting and student grievance redressal channels.

Way Forward: The model could be **replicated across India** as a **National School Safety Framework**, with integration into NEP 2020's holistic education vision.

Conclusion

- The **Safety Club initiative** represents a **transformational shift** in the approach to student safety.
- Moving away from top-down enforcement, it fosters a **culture of ownership, awareness, and mutual responsibility**.
- In an age of rising digital threats and psychosocial stress, this participatory model could serve as a **blueprint for youth safety frameworks nationwide**, aligned with the principles of **empowerment, inclusion, and 21st-century citizenship**.

Hyderabad surgeon Dr. Lokeswara Rao Sajja inducted into Sigma Xi Scientific Society

Source: The Hindu

https://www.thehindu.com/news/cities/Hyderabad/hyderabad-surgeon-dr-lokeswara-rao-sajja-inducted-into-sigma-xi-scientific-society/article69784263.ece

TGPSC Syllabus Relevance: Awards and Honours

Context: About Sigma Xi

Why in News

Dr. Lokeswara Rao Sajja was inducted as an associate member of Sigma Xi in recognition of his pioneering work in cardiac surgery and medical innovation.

SIGMA XI
THE SCIENTIFIC RESEARCH HONOR SOCIETY
National Association of Academies of Science

Introduction

- Dr. **Lokeswara Rao Sajja**, a senior consultant cardiothoracic surgeon at **Star Hospitals, Hyderabad**, and **Chairman of the Sajja Heart Foundation**, has been inducted as an **associate member** of **Sigma Xi – The Scientific Research Honor Society**, in recognition of his significant contributions to **cardiovascular surgery** and **clinical research in India**.
- This rare international recognition underscores India's growing presence in the global scientific community, particularly in **innovative medical technology and evidence-based surgical practices**.

About Sigma Xi: A Premier Scientific Society

- **Founded**: 1886, Cornell University, USA
- **Headquarters**: North Carolina, United States
- **Mission**: To honour excellence in scientific investigation and to promote cooperation among researchers in all fields of science and engineering.
- Over **200 Nobel Laureates** have been

affiliated with Sigma Xi, marking it as one of the world's most prestigious platforms for scientific recognition.

About Dr. Sajja's Contributions

Dr. Sajja has been a **pioneer in Indian cardiovascular surgery**, integrating **clinical research, surgical innovation, and public health outcomes**.

Key Achievements:

1. **PROMOTE Patency Trial**
   - India's **first multicentre randomised clinical trial in cardiac surgery**
   - Set new benchmarks for **evidence-based cardiovascular treatment** in Indian surgical practice
   - Strengthened India's capacity to conduct large-scale **multicentric clinical research** in complex specialities like cardiothoracic surgery.
2. **Development of a Novel Mechanical Heart Valve**
   - The heart valve **eliminates the need for long-term anticoagulation therapy**, a major breakthrough in patient care.
   - It is protected under both **U.S. and Indian patents**, highlighting indigenous innovation with global applicability.
   - Reduces the risk of bleeding and simplifies long-term follow-up in patients undergoing valve replacement surgeries.

Relevance for India

Dr. Sajja's international recognition is significant for multiple reasons:

Advancing Indian Clinical Research

- Promotes **ethical, evidence-based** cardiothoracic care.
- Inspires Indian medical institutions to invest in **rigorous trials** and **innovation**.

Encouraging Indigenous Medical Technology

- Demonstrates the **Make in India** spirit in high-tech medical devices.
- Positions India as a **global hub for frugal innovation** in healthcare.

Strengthening India's Global Image in Science

- Builds credibility for Indian clinicians in international **scientific societies**.
- Highlights India's role in **global collaborations** and **translational research**.

Conclusion

- Dr. Lokeswara Rao Sajja's induction into Sigma Xi is a **symbol of scientific excellence** and a testimony to India's growing footprint in the **global medical research ecosystem**.
- His pioneering work—ranging from **groundbreaking clinical trials** to **life-saving surgical devices**—underscores the potential of **Indian scientists and doctors** to lead at the intersection of **innovation, care, and research**.
- This recognition not only honours individual brilliance but also **raises the profile of Indian science**, aligning with national objectives like **Atmanirbhar Bharat**, **Startup India**, and **Health for All**.

AIC T-Hub spacetech accelerator cohort with 17 startups takes off

Source: The Hindu

https://www.thehindu.com/news/cities/Hyderabad/aic-t-hub-spacetech-accelerator-cohort-with-17-startups-takes-

off/article69788033.ece

TGPSC Syllabus Relevance: Science and Technology

Context: Spacetech Innovation in India

Why in News

Seventeen startups have been selected for the second cohort of AIC T-Hub's spacetech accelerator programme 'Orbit'.

Background

- In July 2025, **17 startups** were selected for the **second cohort of the AIC T-Hub Spacetech Accelerator Programme 'Orbit'**, designed to support India's growing ambitions in the space sector through innovation, mentorship, and institutional support.

- This cohort reflects a strategic push to make India a **global spacetech innovation hub**, leveraging both government and private participation.

What is the Orbit Programme?

- **Launched by**: AIC T-Hub Foundation (Atal Incubation Centre)
- **Focus Area**: Spacetech innovation across satellite tech, propulsion, reusability, intelligent manufacturing, and data analytics
- **Aim**: To **incubate, mentor and fund** spacetech startups and foster Intellectual Property (IP) creation
- **Funding Goal**: Support startups to raise **over ₹3 crore**, and develop **10+ new IP assets**

Significance of the Second Cohort

- **Startups Selected**: 17 startups, including:
  - **ResearchSat** (space biology)
  - **Polygon Geospatial** (spatial data analytics)
  - **ioTHyAi** (AI + IoT integration)
  - **Stardour**, **Raksyon**, **Levitar Systems**, etc.
- **Selection Process**: A structured, merit-based process ensuring quality and domain relevance.

Role of AIC T-Hub and Institutional Support

- **T-Hub**: A Telangana-based innovation ecosystem enabler, focused on high-impact sectors.
- **AIC (Atal Incubation Centre)**: Established under **Atal Innovation Mission (AIM)**, NITI Aayog, to support early-stage startups in India.

Broader Implications for India's Spacetech Sector

1. Strengthening Private Participation in Space

- Follows the policy shifts such as:
  - **Indian Space Policy 2023**
  - Creation of **IN-SPACe** and **NSIL** to facilitate private sector entry
- Accelerators like Orbit bridge the gap between **policy intent and entrepreneurial action**

2. Supporting Make-in-India in Space

- Indigenous innovation in **propulsion**, **communication**, **manufacturing**, and **AI-analytics** aligns with the **Atmanirbhar Bharat** goals.
- Promotes India's leadership in **low-cost,**

high-impact space solutions

3. Boosting India's Global Standing

- India is already seen as a cost-effective space leader (e.g., **Chandrayaan-3**, **Gaganyaan** upcoming)
- Startups can augment India's capability in **commercial satellite launches**, **space-based services**, and **global collaborations**

4. Promoting Innovation and Job Creation

- Programs like Orbit help develop **intellectual property**, build **deep-tech skills**, and foster **scientific entrepreneurship**
- Contributes to India's goal of becoming a **$1 trillion digital economy** by 2027–28

Challenges to Address

- **Access to capital**: Though ₹3 crore target is a start, deeper funding pools are required.
- **Regulatory clarity**: New Space Policy needs strong implementation frameworks and harmonization with telecom and defence laws.
- **Skilling**: Deep-tech startups need talent in niche domains such as orbital mechanics, AI, thermal engineering, etc.

Way Forward

1. **Create a National Spacetech Innovation Mission** under the Space Commission to coordinate R&D and IP efforts.
2. **Expand space accelerator networks** in collaboration with IN-SPACe, ISRO, and international partners.
3. **Encourage public-private partnerships** in satellite constellations, ground stations, and launch vehicle tech.
4. **Invest in spacetech education** through IITs, IIITs, and NITs with joint industry labs.

Conclusion

- The Orbit Accelerator's second cohort represents a powerful shift in India's spacetech innovation landscape.
- With the right mix of visionary leadership, institutional mentorship, and startup agility, India is poised to emerge not just as a spacefaring nation, but as a **global spacetech innovation hub**.
- However, sustained support, regulatory clarity, and integration with national missions will be key to unlocking its full potential.

Women's self-help groups to manage T-Fibre internet services in rural Telangana

Source: Telangana Today

https://telanganatoday.com/womens-self-help-groups-to-manage-t-fibre-internet-services-in-rural-telangana

TGPSC Syllabus Relevance: Governance

Context: Empowering SHG Women through Rural Internet Service

Why in News

Telangana plans to empower Self-Help Group (SHG) women by entrusting them with the operation and maintenance of rural internet services under the T-Fibre initiative.

Background

- In a pioneering move aimed at bridging the digital divide and promoting women-led rural entrepreneurship, the Telangana government is planning to hand over the **operation and maintenance of T-Fibre internet services** to **Self-Help Group (SHG) women** in villages.

- This initiative not only strengthens rural digital infrastructure but also enhances **women's participation in technology-based livelihood opportunities**, aligning with the goals of **Digital India** and **women's economic empowerment**.

Background: T-Fibre and BharatNet

- **T-Fibre (Telangana Fibre Grid)** is a flagship initiative launched under the **BharatNet scheme**, with the vision to provide **high-speed broadband internet** to every household in rural Telangana.
- The project leveraged **Mission Bhagiratha's pipeline network** to lay optical fibre cables, ensuring cost-effective last-mile connectivity.
- Currently, internet services are functional in public institutions such as **Collectorates, Gram Panchayats, MPDO offices**, and other government departments.

New Initiative: SHGs as Rural Internet Service Providers

1. SHG Women in a New Role

- The state government plans to transfer the operational responsibilities of **T-Fibre services to SHGs**, transforming them from micro-entrepreneurs into **digital service enablers**.
- The role of SHGs will cover:
  - **Household connections**
  - **Line and service maintenance**
  - **Service delivery to schools and offices**
  - **Community digital support**

2. Pilot Projects and Expansion Plans

- Pilot implementation began in **December 2024** in select villages in **Peddapalli, Sangareddy, and Narayanpet**.
- As **statewide rollout** begins, SHGs will replace T-Fibre officials in managing local operations, making the model **decentralised and scalable**.

Financial and Operational Support

StreeNidhi Loans

- Each SHG will be eligible for a **₹5 lakh loan** under the **StreeNidhi programme**, a cooperative credit institution that supports women's groups in Telangana.

Affordable Pricing

- Households will receive **4G or 5G internet** at speeds up to **20 Mbps** for **₹300 per month**.

Monitoring Mechanism

- A **Command Control Centre** will be established in **each police station** to ensure service quality and network monitoring.

Digital Services Offered

Rural users will be able to:

- Pay **electricity and water bills**
- Make **property tax payments**
- Perform **mobile recharges**
- Use **UPI for digital transactions**

ignificance of the Initiative

1. Women's Economic Empowerment

- Promotes **entrepreneurship among rural women** by involving them in high-value service delivery.
- Increases income generation and

enhances the **social status** of SHG members.

2. Rural Digital Inclusion

- Improves **internet penetration** in remote villages.
- Facilitates access to **online education, e-governance, digital health, and e-commerce.**

3. Decentralised Governance

- Enables **bottom-up delivery** of digital infrastructure through localised management.
- Reduces burden on state-level officials and increases **community ownership**.

4. Support to Government Objectives

- Aligns with the goals of:
  - **Digital India**
  - **National Broadband Mission**
  - **National Policy on Women 2016**
  - **Gram Panchayat Digitisation**

Challenges and Considerations

- **Training Requirements**: SHG women will need capacity-building in **technical troubleshooting**, **billing**, and **customer service**.
- **Network Maintenance**: Regular maintenance of fibre lines will require logistics and coordination.
- **Affordability vs Sustainability**: While ₹300/month is affordable, ensuring **cost recovery** for SHGs will be crucial.
- **Resistance from Private Operators**: Expansion into broadband services could cause **competition with private ISPs**, especially in semi-urban regions.

Conclusion

- Telangana's model of **SHG-led internet service delivery** under T-Fibre marks a significant leap toward **inclusive digital development** and **women-led rural transformation**.
- By integrating **digital infrastructure with social empowerment**, the initiative serves as a potential **replicable model for other Indian states**, contributing to **rural connectivity**, **women's livelihoods**, and **good governance**

Telangana's rank in National Achievement Survey 2024 improves

Source: The Hindu

https://www.thehindu.com/news/national/telangana/telanganas-rank-in-national-achievement-survey-2024-improves-but-it-is-not-in-top-10-high-performing-states/article69788982.ece

TGPSC Syllabus Relevance: Governance

Context: PARAKH Rashtriya Sarvekshan 2024

Why in News

Telangana showed significant improvement in the PARAKH Rashtriya Sarvekshan 2024, exiting the bottom-10 performing States in student learning outcomes.

Introduction

- The National Council of Educational Research and Training (NCERT) recently released findings from the **PARAKH Rashtriya Sarvekshan 2024** (formerly **National Achievement Survey – NAS**), which assesses student learning outcomes for Grades 3, 6, and 9 across India.
- Telangana demonstrated measurable improvement in learning levels, exiting the list of bottom-10 performing States.

About PARAKH Rashtriya Sarvekshan:

Particular	Details
Conducting Body	NCERT under the Ministry of Education
Frequency	Every 3 years
Earlier Name	National Achievement Survey (NAS)
Current Grades Assessed	Grades 3 (Foundational), 6 (Preparatory), and 9 (Middle stage)
Purpose	To assess learning competencies in subjects like Language and Mathematics to inform education policy, curriculum design, and teaching methods

In 2024, over **21 lakh students** were assessed from **781 districts** across **28 States and 8 Union Territories**.

Key Findings for Telangana:

1. **District-Level Performance:**
   - **Jangaon** is the **only district from Telangana** to feature in the **top 50 high-performing districts** nationally.
   - **Wanaparthy**, **Bhadradri Kothagudem**, and **Mulugu** featured among the **bottom 50 districts**.
2. **State Rankings:**
   - **Grade 3**: Ranked **26th** (compared to 36th in 2021)
   - **Grade 6**: Ranked **26th**
   - **Grade 9**: Ranked **17th**
   - Telangana has moved **out of the bottom-10 performing States** across all grades, indicating significant improvement.
3. **Comparison with 2021 NAS:**
   - Clear upward trend from previous rankings (Telangana was among the bottom performers in 2021).
   - Marks a **turnaround in foundational and preparatory level learning**, especially in government schools.
4. **Subject-Wise Improvement:**
   - **10 percentage point improvement** in **language and mathematics scores** for **Class 3**.
   - **Government schools**, especially those under **State management**, have **outperformed private and Central government schools** in core subjects at the foundational level.

Factors Contributing to Improvement:

Intervention	Impact
Teacher Promotions and Transfers	Ensured appropriate teacher deployment, improving learning delivery
Capacity Building	Training and academic support for teachers improved classroom effectiveness
Foundational Literacy and Numeracy (FLN) Initiatives	Strengthened early-grade reading and arithmetic abilities
Academic Support & Monitoring	Regular assessments, feedback, and school visits promoted accountability and

	performance

Significance of Telangana's Progress:

1. **Equity in Education**: Government schools outperforming private schools reflects success in bridging learning gaps across social and economic strata.
2. **Policy Effectiveness**: Demonstrates the positive impact of targeted reforms and teacher-focused initiatives.
3. **Academic Recovery Post-Pandemic**: Encouraging signs that early learning loss due to school closures is being reversed.
4. **Informed Decision-Making**: Data from this assessment can shape future curriculum reform, teaching strategies, and public investments in school education.

Challenges Ahead:

- Performance disparities still exist across districts within Telangana.
- Continued focus is required on **basic literacy and numeracy**, particularly in **Grades 3 and 6**.
- Ensuring **long-term sustainability** of academic gains requires persistent **teacher training**, **infrastructure improvement**, and **community engagement**.

Conclusion:

- Telangana's improved performance in the **PARAKH Rashtriya Sarvekshan 2024** reflects a positive trajectory in school education reform.
- The State's exit from the bottom-10 performing States and measurable improvements in foundational learning outcomes indicate that targeted efforts—such as better teacher management, focused academic support, and capacity-building—are yielding results.
- However, the focus must now shift to ensuring **sustained learning recovery** and **reducing intra-state disparities** to achieve equitable and quality education for all

Post offices in Telangana adopt QR-based payments under APT 2.0

Source: Telangana Today

https://telanganatoday.com/post-offices-in-telangana-adopt-qr-based-payments-under-apt-2-0

TGPSC Syllabus Relevance: Science and Technology

Context: APT 2.0 (Advanced Postal Technology)

Why in News

The Telangana Postal Circle has rolled out **APT 2.0**, enabling UPI-based digital payments and real-time tracking as part of India Post's digital infrastructure upgrade.

Introduction

- The **Telangana Postal Circle** launched a **pilot rollout of APT 2.0 (Advanced Postal Technology)** to modernize postal services and enhance customer convenience.
- This initiative brings key digital upgrades, including **UPI-based payments**, **real-time tracking**, and **photo-proof deliveries**, aimed at both rural and urban populations.

Key Features of APT 2.0 Implementation

1. **UPI-Based Digital Payments at Post**

Offices

- Customers can now make **cashless payments** for services such as **Speed Post**, **Registered Post**, **Parcels**, **International Mail**, and **Electronic Money Orders**.
- Payments can be made using **QR codes**, eliminating the need for cash transactions.

2. **Digital Infrastructure Upgrade**
   - APT 2.0 is India Post's **next-generation IT infrastructure**, designed to enhance:
     - **Efficiency**
     - **Transparency**
     - **Customer Experience**
3. **End-to-End Consignment Tracking**
   - Customers receive **real-time SMS alerts** from booking to delivery.
   - **Photo proof** and **live remarks** are updated during delivery, ensuring transparency and accountability.
4. **Bulk Customer Support & Self-Booking Facilities**
   - APT 2.0 includes a **bulk booking feature** with integrated **UPI payment gateway**, helping businesses and high-volume users.

Coverage in Telangana

- The **pilot rollout** (started July 8, 2025) includes:
  - **4 Head Post Offices**
  - **105 Sub Post Offices**
  - **453 Branch Post Offices**
  - Across **Hyderabad, Rangareddy, Nalgonda, Yadadri Bhuvanagiri**, and **Medchal-Malkajgiri districts**
  - Also covers **17 mail offices** and **23 administrative offices**
- By **first week of August 2025**, APT 2.0 will be expanded to:
  - **32 Head Post Offices**
  - **685 Sub Post Offices**
  - **4,986 Branch Post Offices** in Telangana

Significance of the Initiative

1. **Improved Access & Convenience**
   - Facilitates **cashless services** in rural areas.
   - Enhances **financial inclusion** through seamless digital transactions.
2. **Benchmark for E-Governance**
   - Sets a **model for digital transformation** of government services, aligning with the **Digital India** mission.
3. **Enhanced Customer Experience**
   - **User-friendly interfaces**, transparent tracking, and faster service delivery build public trust.
4. **Rural Connectivity & Outreach**
   - Digitisation of **Branch Post Offices (BPOs)** ensures that rural populations are not left behind in the digital transition.

Way Forward

- APT 2.0 could act as a **template for replication** across other postal circles.
- The use of **AI, real-time analytics**, and **mobile technologies** in future upgrades may further enhance service delivery.
- Continued efforts needed in **digital literacy** and **infrastructure support**, especially in remote areas.

Conclusion

- The implementation of APT 2.0 in Telangana marks a significant milestone in the evolution of India Post.

- It exemplifies how legacy institutions can adapt to modern technological standards while maintaining their core public service role.
- The initiative not only improves the efficiency of postal services but also supports larger goals of **Digital India**, **financial inclusion**, and **good governance**.

Telangana bags award for leadership in battery manufacturing

Source: The Hindu

https://www.thehindu.com/news/cities/Hyderabad/telangana-bags-award-for-leadership-in-battery-manufacturing/article69797060.ece

TGPSC Syllabus Relevance: Awards and Honours

Context: Telangana Wins IESA Industry Excellence Award 2025

Why in News

Telangana has been awarded the **India Energy Storage Alliance (IESA) Industry Excellence Award 2025** in the **"State Leadership – Battery Manufacturing"** category.

Introduction

- The **India Energy Storage Alliance (IESA)** conferred the 2025 Industry Excellence Award on **Telangana** during the **11th India Energy Storage Week (IESW)** held in **New Delhi**.
- This recognition reaffirms Telangana's position as a frontrunner in **advanced energy manufacturing**, especially in the field of **battery and cell manufacturing**, which is crucial for the future of clean energy, electric vehicles (EVs), and decarbonization of the economy.

What is the IESA Industry Excellence Award?

- The **India Energy Storage Alliance (IESA)** is a leading industry alliance focused on accelerating energy storage, e-mobility, green hydrogen, and emerging technologies.
- The **Industry Excellence Award** honors exemplary work done by **states, companies, and institutions** in promoting innovation, industrial infrastructure, and policy leadership in the energy storage and electric mobility sectors.

Why Telangana? — The Basis for the Recognition

1. Strategic Industrial Policies

- **Telangana Electric Vehicle and Energy Storage Policy (2020)**:
  - Offers **incentives** for EV and battery manufacturing units such as capital subsidies, land rebates, and SGST reimbursements.
  - Encourages establishment of **Gigafactories** and lithium-ion battery recycling plants.
- **Telangana Renewable Energy Policy**:
  - Promotes renewable energy generation and integration with

storage solutions.

- Facilitates hybrid energy parks combining solar, wind, and storage facilities.

2. Infrastructure Development

- Creation of **dedicated industrial clusters and parks** focused on advanced chemistry cell (ACC) battery manufacturing, EV assembly, and component supply chains.
- Examples include:
  - **EV cluster in Chandanvelly and Sitarampur** near Hyderabad.
  - **T-Hub and T-Works** supporting startups in the clean tech and battery innovation space.

3. Innovation and Startup Ecosystem

- Telangana has invested heavily in building an **innovation-driven ecosystem**, including:
  - **TSIC (Telangana State Innovation Cell)**
  - **We Hub** for women entrepreneurs
  - **Research collaborations** with academic institutions like IIIT-Hyderabad, BITS Pilani, and IIT-Hyderabad in battery technology and clean energy.

Significance of Battery Manufacturing in India

1. National Energy Security

- Battery storage is critical for **energy transition**, especially to balance **intermittent renewable energy** (solar and wind).
- India targets **500 GW of non-fossil fuel-based capacity by 2030**, and large-scale battery manufacturing is essential for grid stability.

2. EV Ecosystem

- Batteries form over **35–40%** of the total cost of EVs.
- Domestic production of **advanced chemistry cells (ACC)** will reduce import dependence and boost **Make in India**.

3. Job Creation and Economic Impact

- Telangana's proactive approach creates **green jobs**, attracts **FDI**, and develops a **local value chain**, boosting overall industrial competitiveness.

Comparison with Other States

- While states like **Tamil Nadu**, **Maharashtra**, and **Karnataka** are also investing in EV and battery sectors, Telangana has distinguished itself through:
  - **Policy clarity and speed of implementation**
  - **Land and infrastructure readiness**
  - **Strong coordination** between departments such as Industries, Energy, and IT

Challenges:

- **Supply chain vulnerabilities**, especially reliance on imported lithium, cobalt, and nickel.
- **Technological evolution** in battery chemistry demands continuous R&D.
- **Environmental risks** associated with battery recycling and disposal.

Future Outlook:

- Telangana plans to attract more investments in **battery recycling**, **green hydrogen**, and **circular economy models**.
- Collaboration with global players for **technology transfer** and **skill development** will be key.

- Strengthening linkages with **national-level initiatives** such as:
  - **Production Linked Incentive (PLI) Scheme** for ACC Batteries
  - **FAME-II** for electric mobility

Conclusion

- The **IESA Industry Excellence Award 2025** awarded to Telangana is not just a mark of recognition but a symbol of the **state's visionary leadership** in shaping India's clean energy future.
- Telangana's integrated approach — combining **policy innovation, infrastructure development, industrial promotion, and digital governance** — provides a replicable model for other states aspiring to lead in the green industrial revolution.

Cabinet approves 42% reservation for BCs in local bodies polls

Source: The Hindu

https://www.thehindu.com/news/national/telangana/cabinet-approves-42-reservation-for-bcs-in-local-bodies-polls/article69797456.ece

TGPSC Syllabus Relevance: Polity and Governance

Context: Reservation in Local Bodies

Why in News

The Telangana Cabinet, in July 2025, approved 42% reservations for Backward Classes (BCs) in local body elections and initiated several governance reforms.

Introduction

- In a landmark move towards **social justice and inclusive governance**, the Telangana State Cabinet, chaired by Chief Minister **A. Revanth Reddy**, took several major decisions during its 19th Cabinet meeting held on July 11, 2025.
- The key highlights include the approval of **42% reservations for Backward Classes (BCs) in local body elections**, a significant push for **job creation**, establishment of **private universities**, expedited **agricultural and irrigation projects**, and support for **rural development and the fisheries sector**.

42% Reservation for BCs in Local Body Elections

- Fulfilling a **long-standing demand** and its **2023 pre-poll promise**, the Congress-led Telangana government approved **42% reservation for Backward Classes (BCs)** in upcoming local body elections.
- This decision was taken after a **five-hour Cabinet meeting** in the presence of the **Advocate General**, who provided legal guidance on the matter.

Legal and Political Context

- The decision is **anchored in the Kamareddy BC Declaration** made on February 4, 2024.
- It also honours the public assurance made by **Rahul Gandhi** during the **Bharat Jodo Yatra** to enhance BC representation.
- The government undertook a **scientific**

and data-backed caste survey, the results of which were used to justify the reservation enhancement.

- A **Bill for caste survey** was already passed in the Assembly and forwarded to the Centre, though the Union government sought clarifications, causing delays.
- The High Court had directed the State to **conduct local body elections within three months**.
- To facilitate this, an **amendment to the Telangana Panchayat Raj Act, 2018**, will be introduced.

Expected Impact

- **Increased political representation** of marginalised communities at grassroots level
- Strengthening of **decentralised governance** and empowerment of BCs
- Fulfilment of constitutional goals of **equality and affirmative action**

Recruitment and Employment: 1 Lakh Government Jobs

- The Cabinet reviewed the progress of job recruitment in the State:
  - **60,000 jobs already filled**
  - Recruitment in process for **17,084 jobs**
  - **22,033 new job notifications** to be released soon

Goal

- To complete the recruitment of **1 lakh government jobs** by **March 2026**.

Importance

- Addresses **youth unemployment**
- Supports the State's **economic revival and service delivery**
- Enhances **capacity of departments and governance infrastructure**

Approval of Two Private Universities

New Universities

- **Amity University** and **St. Mary Rehabilitation University** were granted approval to operate as **private universities**.

Key Features

- **50% reservation for local students** in admissions
- **St. Mary's University** to operate as a **non-conventional university**, with a focus on **skill development programmes** aimed at **industry-readiness and employability**

Rationale

- Diversification of **higher education options**
- Encouragement for **private investment in education**
- Focus on **skill-based education** tailored to regional and national economic needs

Monitoring and Implementation of Cabinet Decisions

- Of the **327 issues discussed across 18 previous Cabinet meetings**,
  - **321 have been ratified**
  - **96% of these are in the implementation stage**
- The Chief Minister ordered that **pending decisions be expedited**.
- A **quarterly review mechanism** will be instituted to track implementation and resolve bottlenecks.

Fast-tracking Incomplete Irrigation Projects

Key Points

- A **review was conducted on irrigation projects** where **98% of the financial expenditure has been incurred**, but

irrigation benefits have not yet been realised.

- The Cabinet instructed immediate steps to:
  - Resolve issues related to **land acquisition**
  - **Complete the pending works** to ensure water delivery to agricultural fields

Presented by

- **Irrigation Minister Uttam Kumar Reddy**, who submitted a detailed report.

Impact

- Unlocks the **latent potential of capital-intensive projects**
- Enhances **water security for farmers** and strengthens agricultural productivity
- Promotes **sustainable rural development**

Support for Animal Husbandry and Fisheries

Goshalas

- The Cabinet noted issues concerning the **300 existing Goshalas (cow shelters)** across Telangana.
- A new policy will be framed to improve their functioning.
- A **modern Goshala** will be developed at **Yadagirigutta** as a **model institution** for animal welfare.

Fisheries

- The government will release **82 crore fishlings** to support the **rural economy** and **fisheries sector**.
- The initiative is expected to provide livelihood to thousands of small and marginal fishers and boost **aquaculture-based income generation**.

Conclusion

- The recent decisions taken by the Telangana Cabinet underscore a **comprehensive and inclusive governance approach**, focusing on **social justice**, **employment generation**, **educational expansion**, and **rural development**.
- The implementation of 42% BC reservation in local body elections is a **historic political and social reform**, while the simultaneous push for job creation and completion of irrigation projects reflects the government's commitment to both **equity and efficiency**.

Telangana achieves 95 per cent of Vana Mahotsavam target

Source: New Indian Express

https://www.newindianexpress.com/states/telangana/2025/Jul/11/telangana-achieves-95-per-cent-of-vana-mahotsavam-target

TGPSC Syllabus Relevance: Governance

Context: Vana Mahotsavam

Why in News

Telangana has achieved 95.07% of its 2024–25 plantation target under the Vana Mahotsavam drive, planting over 19 lakh saplings by July 2, 2025.

Introduction

- The Government of Telangana has made significant progress in its annual **Vana Mahotsavam** plantation campaign for 2024–25, achieving **95.07% of its target** by **July 2, 2025**.
- The drive aimed to plant or distribute **20.02 lakh saplings**, out of which **19.03 lakh saplings** have already been accounted for.

- This green initiative is part of the broader **Telangana Ku Haritha Haram (TKHH)** programme, a flagship afforestation and ecological conservation scheme of the state.

Key Highlights of the Report

1. **Overall Achievement**
   - **Target**: 20.02 lakh saplings
   - **Achieved by July 2, 2025**: 19.03 lakh (95.07%)
2. **Performance by Departments**

Category	Departments	Achievement Rate
Top Performers	Youth Advancement, Tourism & Culture	119.11%
	Women, Children, Disabled & Senior Citizens	110.06%
	Panchayati Raj & Rural Development (PR&RD) – 7 lakh	109.91%
	Greater Hyderabad Municipal Corporation (GHMC) – 50,835	100%+
Moderate	Hyderabad Metropolitan Development Authority (HMDA) – 6.67 lakh	89.07%
	Education	80.75%
	Industries & Commerce	72.42%
Low Performers	Home Department	42.79%
	Tribal Welfare / ITDA	47.24%
	Animal Husbandry	37.10%

Challenges Identified

Despite the quantitative success of the plantation drive, several **qualitative concerns** have been raised:

- **Sapling Survival Rate:** Environmental experts caution that the **number of saplings planted does not equate to ecological restoration**. Post-plantation care such as **watering, fencing, and maintenance** is often neglected.
- **Departmental Disparity:** A few departments have not even achieved **half of their assigned targets**, indicating either administrative delays or lack of field coordination.
- **Sustainability Tracking:** Without proper monitoring and survival audits, **plantation efforts may fail to result in long-term environmental benefits**.

Government's Response and Future Strategy

Officials have assured that **mid-year reviews** will focus on:

- **Ground verification** of plantation claims
- **Survival audits** of distributed saplings
- **Intensified plantation activities** during the ongoing monsoon months
- **Accountability measures** for underperforming departments

This approach aligns with Telangana's long-term ecological objectives and supports the UN Sustainable Development Goals (SDGs), particularly **SDG 13 (Climate Action)** and **SDG 15 (Life on Land)**.

Conclusion

- Telangana's Vana Mahotsavam drive reflects the state's **institutional commitment to environmental restoration**. However, achieving **ecological impact requires more than just plantation numbers**—it demands a robust follow-up mechanism to ensure sapling survival and sustained greenery.
- With timely mid-year reviews and monsoon-friendly measures, the state can not only meet but exceed its environmental targets.

Telangana restricts 25 per cent quota under RTE to areas without government schools

Source: New Indian Express

https://www.newindianexpress.com/states/telangana/2025/Jul/14/telangana-restricts-25-per-cent-quota-under-rte-to-areas-without-government-schools

TGPSC Syllabus Relevance: Polity and Governance

Context: RTE Act in Telangana

Why in News

Telangana has revised its implementation of Section 12(1)(C) of the RTE Act, restricting 25% private school admission for disadvantaged students to areas without a government school within one kilometre.

Introduction

- The **Director of School Education, Telangana**, has recently issued revised guidelines concerning the implementation of **Section 12(1)(C)** of the **Right of Children to Free and Compulsory Education Act, 2009 (RTE Act)**.
- This provision mandates **private unaided non-minority schools** to reserve **25% of entry-level seats** for children from **disadvantaged groups (DG)** and **economically weaker sections (EWS)**.
- However, **Telangana's new policy approach** significantly **restricts the blanket application** of this mandate, aligning it with local school availability and government capacity.

Key Features of the New Guidelines:

1. Conditional Implementation Based on Proximity:

- The 25% RTE quota will now be **enforced only in habitations where no government or local body school exists within a one-kilometre radius**.
- The policy explicitly makes **proximity and availability of government schools** the key criteria for applying the RTE mandate in private schools.
- This **decentralised and data-driven model** aims to ensure **optimal use of existing public infrastructure**.

2. Identified Areas for Enforcement:

- RTE quota will be **implemented in 96**

localities, comprising:

- **50 rural habitations**, and
- **46 urban colonies or wards** where **only private schools are operational**.

- Among these, **28 rural** and **33 urban areas** have already been **shortlisted** for immediate implementation.

Rationale Behind the Policy Shift:

- According to officials, this move **reaffirms the original intent** of Section 12(1)(C)—that **private school admissions should serve as a supplementary mechanism**, **not as a substitute** for public education systems.
- The goal is to **prioritise the strengthening of government schools**, while allowing private school options **only where public provisioning is unavailable or inadequate**.

Institutional and Financial Mechanisms Proposed:

1. New Government Schools Planned:

- In June, the Telangana Education Department announced plans to **establish new primary schools** in:
  - **212 rural habitations**, and
  - **359 urban colonies** to reduce dependence on private institutions.

2. Per-Child Expenditure and Transport Allowance:

- A **separate committee** is proposed to be constituted to:
  - Determine **per-child reimbursement costs** for private schools, and
  - Fix **transport allowances** in areas where **neither government nor private schools exist within a 1 km radius**.

3. Committee under RTE Rules:

- As per **Rule 10(3) of the RTE Rules, 2010**, a **dedicated committee** is being planned to monitor and guide the implementation of these new guidelines.

Timeline for Implementation:

- The revised provisions are expected to be **enforced from the next academic year**.
- This is due to the fact that **most private schools have already completed their admissions** for the ongoing session.
- In the interim, the **Education Department is finalising modalities** including mapping of schools, budget calculations, and administrative setup.

Significance of the Move:

- Encourages **efficient utilisation of public schools** and reduces undue financial burden on the state for private school reimbursements.
- Promotes a **need-based, equitable approach** rather than a uniform mandate.
- Aligns with **federal education goals** and the **National Education Policy (NEP) 2020**, which emphasizes **strengthening foundational schooling through public investment**.

Challenges Ahead:

- **Monitoring compliance** in designated habitations.

- Ensuring **quality education** in newly established government schools.
- Timely **release of reimbursements** and **transport allowances** to eligible beneficiaries.
- Preventing **elite capture** or **exclusionary practices** in private institutions.

Conclusion:

- The Telangana government's move to conditionally implement **Section 12(1)(C)** reflects a **targeted, Context-sensitive approach** to education policy.
- By **reserving private school admissions only where public schooling is unavailable**, the state aims to balance **social inclusion with systemic strengthening**.
- While the success of the initiative will depend on robust institutional mechanisms and effective monitoring, it represents a **progressive step toward rationalising RTE implementation** in line with local needs and capacity.

CM launches new ration cards; 80% of Telangana now gets free fine rice

Source: New Indian Express

https://www.newindianexpress.com/states/telangana/2025/Jul/11/telangana-achieves-95-per-cent-of-vana-mahotsavam-target

TGPSC Syllabus Relevance: Governance

Context: Public Distribution System (PDS)-Ration cards distribution

Why in News

Telangana launched India's largest single-phase ration card drive, distributing over 5.61 lakh cards and becoming the first state to offer 6 kg of fine rice per person to 80% of its population free of cost.

Introduction

- In a landmark welfare initiative, the **Telangana government**, under the leadership of **Chief Minister A. Revanth Reddy**, launched the **statewide distribution of over 5.61 lakh new ration cards** on July 15, 2025.
- The event was held in **Tungaturthy, Suryapet district**, marking the first such large-scale drive in over a decade.
- This move is being hailed as a **historic milestone in social justice and food security** in the state.

Key Features of the Ration Card Distribution Drive

- **Scale and Impact**:
  - **5.61 lakh** new ration cards issued in a **single phase**.
  - **26 lakh new beneficiaries** added to the **Public Distribution System (PDS)**.
  - Total beneficiaries under the PDS now stand at **3.09 crore people** across **95.56 lakh households**.
- **Free Fine Rice Scheme**:
  - Telangana has become the **first State in the world** to provide **6 kg of fine rice per person** to **80% of its**

population, entirely free of cost.

- The state government is allocating **₹13,000 crore annually** for procurement and distribution of this high-quality grain.

- **Restoring Rights and Dignity**:
  - The initiative seeks to **restore the self-respect of the poor**, ensuring their **right to food and dignity** through **rationalised and expanded welfare coverage**.
  - The drive also addresses **years of pending requests** and resolves **issues related to family member updates**, a concern left unaddressed by the previous regime.

Administrative Reforms:

- The ration card distribution is part of a broader effort to **revive and reform** the **Telangana Civil Supplies Corporation**, which was previously burdened with:
  - ₹59,000 crore in liabilities
  - ₹11,000 crore in accumulated losses
- The current government claims to have **restructured the Corporation**, turning it into a functional and efficient institution powering **India's most ambitious food security programme**.

Forward Commitments

- The Chief Minister also **promised irrigation benefits** to Tungaturthy through the **Devadula lift irrigation project**, signaling the integration of **multiple welfare strategies** – food security, agricultural support, and infrastructure development – to **uplift marginalized communities**.

Conclusion:

- The **ration card drive** marks a **significant paradigm shift** in Telangana's approach to welfare – from **beneficiary-based** to a **rights-based model**.
- By ensuring **universal access to quality food grains** and restructuring the delivery mechanisms, the state has positioned itself as a **pioneer in inclusive governance**.
- This initiative not only aligns with the **spirit of the National Food Security Act (NFSA)** but also demonstrates the potential of **political will combined with administrative efficiency** to create **transformational impact** on the lives of the poor.

India's first carbon fibre foot prosthesis unveiled at AIIMS in Telangana

Source: New Indian Express

https://www.newindianexpress.com/states/telangana/2025/Jul/15/indias-first-carbon-fibre-foot-prosthesis-unveiled-at-aiims-in-telangana

TGPSC Syllabus Relevance: Public Health

Context: India's first carbon fibre foot

Why in News

India's first indigenously developed carbon fibre foot prosthesis, ADIDOC, was launched by DRDL and AIIMS Bibinagar under the Atmanirbhar Bharat initiative.

Introduction

- In a significant stride towards **self-reliance in medical technology**, the **Defence Research and Development Laboratory (DRDL)** in collaboration with **AIIMS Bibinagar** has developed

India's **first indigenously designed carbon fibre foot prosthesis**, named **ADIDOC** (AIIMS Bibinagar - DRDL, DRDO Indigenously Developed Optimised Carbon Foot Prosthesis).

- The innovation aligns with the **Atmanirbhar Bharat** initiative and is expected to make high-quality prosthetic care more **affordable and accessible** to the masses.

Context and Background

- India has a **large population of lower-limb amputees**, many of whom are from **low-income backgrounds**.
- Advanced prosthetic limbs, especially carbon fibre foot prostheses, are currently **imported** and **cost upwards of ₹2 lakh**, making them inaccessible for many.
- In light of this, a **joint initiative** was launched by the **Ministry of Health and Family Welfare (through AIIMS Bibinagar)** and the **Ministry of Defence (through DRDO–DRDL)** to develop a **cost-effective and indigenous solution**.

Key Features of ADIDOC Foot

- **Material and Design**: Made of **high-performance carbon fibre**, optimized for strength, durability, and performance.
- **Biomechanical Strength**: Tested to **withstand loads up to 125 kg**.
- **K3-Level Functionality**: Designed for **highly active users** (K3 level) — those who can walk with variable cadence and perform activities beyond simple locomotion.
- **Variants**: Available in **three different models** to suit users of various body weights.
- **Cost-Effectiveness**: Estimated **production cost as low as ₹20,000**, significantly more affordable than similar **international prosthetics**.
- **Performance**: Offers performance **on par with global models**, enabling mobility, comfort, and energy efficiency.

Significance of the Innovation

1. Technological Self-Reliance (Atmanirbhar Bharat)

- Reduces **dependency on imported prosthetics**.
- Promotes **indigenous R&D** in the field of biomedical engineering and prosthetics.

2. Accessibility and Social Inclusion

- Makes high-quality prosthetic limbs **accessible to economically weaker sections**.
- Encourages **greater participation of persons with disabilities** in education, employment, and public life.

3. Medical-Military Collaboration

- Reflects successful collaboration between a **defence R&D agency** (DRDL) and a **healthcare institution** (AIIMS Bibinagar).
- Sets a precedent for **dual-use innovations** in defence and civilian sectors.

4. Economic Potential

- Opens doors for **domestic production and job creation** in assistive medical devices.
- Reduces foreign exchange outflows by **substituting imports**.

Way Forward

- **Mass production and distribution** of the ADIDOC foot across India.
- **Inclusion in public health schemes** like Ayushman Bharat for wider reach.

- Promotion of **startups and MSMEs** in medical technology manufacturing.
- Continued **R&D for customisable and AI-integrated prosthetics** in future.

Conclusion

- The development of the **ADIDOC carbon foot prosthesis** marks a **transformative milestone** in India's journey toward **inclusive healthcare and technological sovereignty**.
- By combining **affordability with performance**, this initiative holds the promise of restoring mobility and dignity to countless individuals, making it a shining example of the **Make in India** spirit.

Justice AK Singh appointed CJ of Telangana HC

Source: New Indian Express

https://www.newindianexpress.com/states/telangana/2025/Jul/15/justice-ak-singh-appointed-cj-of-telangana-hc

TGPSC Syllabus Relevance: Judiciary

Context: Telangana HC CJ

Why in News

Justice Aparesh Kumar Singh, former Chief Justice of Tripura High Court, has been appointed as the new Chief Justice of the Telangana High Court.

Introduction

- **President Droupadi Murmu** approved the **transfer of Justice Aparesh Kumar Singh**, currently the Chief Justice of the **Tripura High Court**, to take over as the **Chief Justice of the Telangana High Court**.
- The appointment was formalized through an order issued by **Jagannath Srinivasan**, Joint Secretary, Ministry of Law & Justice (Appointments Division), and Justice Singh has been directed to **assume charge without delay**.
- This transfer is part of the **routine administrative reshuffling** of high court judges in India, aimed at enhancing the efficiency of judicial administration and promoting national integration within the higher judiciary.

Profile of Justice Aparesh Kumar Singh

Particular	Details
Notable Positions	• **Executive Chairman**, Jharkhand State Legal Services Authority (April 2021 onwards) • **Acting Chief Justice**, Jharkhand High Court (Dec 20, 2022 – Feb 19, 2023) • **Chief Justice**, Tripura High Court (since April 17, 2023)

Constitutional Provisions Related to the Appointment of High Court Judges

The appointment and transfer of High Court judges are governed by **Articles 217 and 222** of the **Constitution of India**:

- **Article 217(1):** The Chief Justice of a High Court is appointed by the **President of India**, in consultation with the **Chief Justice of India (CJI)** and the **Governor of the concerned state**.
- **Article 222(1):** The **President may transfer a judge from one High Court to another**, after consultation with the **Chief Justice of India**.

These constitutional safeguards are meant to preserve the **independence of the judiciary**, maintain **institutional integrity**, and ensure an

equitable **distribution of judicial talent** across India.

Significance of the Appointment

- **Judicial Leadership in Telangana:** Justice Singh's transfer comes at a time when the **Telangana High Court** is playing an increasing role in matters related to **urban development, constitutional interpretation, and public interest litigation** in a rapidly evolving legal landscape.
- **Experienced Leadership:** Justice Singh brings with him over **a decade of judicial experience** and prior exposure to legal service delivery mechanisms and administrative responsibilities, such as his tenure with the **Jharkhand State Legal Services Authority**.
- **Federal Spirit and All-India Character of Judiciary:** Transfers such as these promote **national integration within the higher judiciary**, avoiding regional bias and strengthening the **All India character of the judicial system** as envisaged in the Constitution.

About the Telangana High Court

- **Established:** January 1, 2019 (after the bifurcation from the common High Court for Telangana and Andhra Pradesh)
- **Location:** Hyderabad
- **Jurisdiction:** Entire state of Telangana
- **Significance:** Handles cases related to **constitutional matters, service laws, land disputes, and public policy** within the state.

Landmark Judgments of Telangana High Court

K. Ramulu v. State of Telangana (2020)

- Context: Involved the **right to livelihood and eviction of farmers** for infrastructure projects.
- **Key Ruling**: The Court emphasized that the **State must ensure adequate compensation and rehabilitation** under the Right to Fair Compensation and Transparency in Land Acquisition Act, 2013.
- **Significance**: Reinforced fair land acquisition and livelihood rights under Article 21.

Vemula Radhakrishna v. State of Telangana (2020)

- Context: On the **powers of the State Election Commission** in postponing local body elections due to COVID-19.
- **Key Ruling**: The HC upheld the **State Election Commission's constitutional autonomy** under Article 243K.
- **Significance**: Clarified the balance between public health emergencies and democratic rights.

Bathini Srinivas v. State of Telangana (2020)

- Context: Pertained to **custodial violence and police excesses**.
- **Key Ruling**: The Court directed a **CBI probe into custodial deaths**; emphasized that **custodial torture violates fundamental rights**.
- **Significance**: Reiterated the importance of **Article 21 (Right to Life)** and protection against torture.

Professor Kodandaram & Others v. State of Telangana (2019)

- **Context**: Challenge to police denial of permission for public protest.
- **Key Ruling**: Held that the **right to peaceful protest is part of freedom of speech and assembly (Articles 19(1)(a) & 19(1)(b))**, and the State must regulate, not prohibit, such rights.
- **Significance**: Landmark for **civil liberties and protest rights** in Telangana.

1,800-year-old inscription unearthed in Telangana's Yadadri

Source: New Indian Express

https://www.newindianexpress.com/states/telangana/2025/Jul/15/1800-year-old-inscription-unearthed-in-telanganas-yadadri

TGPSC Syllabus Relevance: Art and Culture

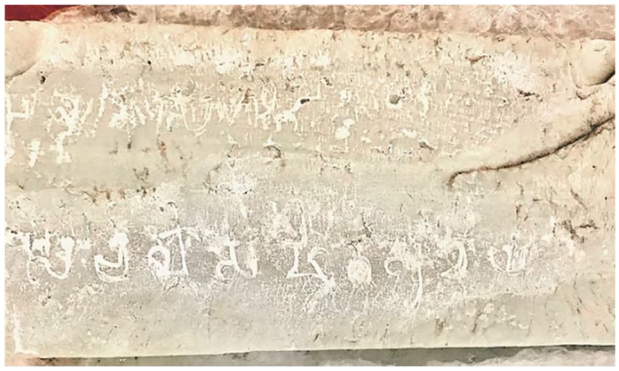
Context: Yadadri Inscription

Why in News

A 2nd-century CE Brahmi inscription in Prakrit, linked to the Satavahana period, was discovered at Chada (Yadadri Bhuvanagiri, Telangana), indicating the site's historical importance as a Buddhist centre.

Introduction

- In a significant stride towards **self-reliance in medical technology**, the **Defence Research and Development Laboratory (DRDL)** in collaboration with **AIIMS Bibinagar** has developed India's **first indigenously designed carbon fibre foot prosthesis**, named **ADIDOC** (AIIMS Bibinagar - DRDL, DRDO Indigenously Developed Optimised Carbon Foot Prosthesis).
- The innovation aligns with the **Atmanirbhar Bharat** initiative and is expected to make high-quality prosthetic care more **affordable and accessible** to the masses.



Context and Background

- India has a **large population of lower-limb amputees**, many of whom are from **low-income backgrounds**.
- Advanced prosthetic limbs, especially carbon fibre foot prostheses, are currently **imported** and **cost upwards of ₹2 lakh**, making them inaccessible for many.
- In light of this, a **joint initiative** was launched by the **Ministry of Health and Family Welfare (through AIIMS Bibinagar)** and the **Ministry of Defence (through DRDO–DRDL)** to develop a **cost-effective and indigenous solution**.

Key Features of ADIDOC Foot

- **Material and Design**: Made of **high-performance carbon fibre**, optimized for strength, durability, and performance.
- **Biomechanical Strength**: Tested to **withstand loads up to 125 kg**.
- **K3-Level Functionality**: Designed for **highly active users** (K3 level) — those who can walk with variable cadence and perform activities beyond simple locomotion.

- **Variants**: Available in **three different models** to suit users of various body weights.
- **Cost-Effectiveness**: Estimated **production cost as low as ₹20,000**, significantly more affordable than similar **international prosthetics**.
- **Performance**: Offers performance **on par with global models**, enabling mobility, comfort, and energy efficiency.

Significance of the Innovation

1. Technological Self-Reliance (Atmanirbhar Bharat)

- Reduces **dependency on imported prosthetics**.
- Promotes **indigenous R&D** in the field of biomedical engineering and prosthetics.

2. Accessibility and Social Inclusion

- Makes high-quality prosthetic limbs **accessible to economically weaker sections**.
- Encourages **greater participation of persons with disabilities** in education, employment, and public life.

3. Medical-Military Collaboration

- Reflects successful collaboration between a **defence R&D agency** (DRDL) and a **healthcare institution** (AIIMS Bibinagar).
- Sets a precedent for **dual-use innovations** in defence and civilian sectors.

4. Economic Potential

- Opens doors for **domestic production and job creation** in assistive medical devices.
- Reduces foreign exchange outflows by **substituting imports**.

Way Forward

- **Mass production and distribution** of the ADIDOC foot across India.
- **Inclusion in public health schemes** like Ayushman Bharat for wider reach.
- Promotion of **startups and MSMEs** in medical technology manufacturing.
- Continued **R&D for customisable and AI-integrated prosthetics** in future.

Conclusion

- The development of the ADIDOC carbon foot prosthesis marks a transformative milestone in India's journey toward inclusive healthcare and technological sovereignty.
- By combining affordability with performance, this initiative holds the promise of restoring mobility and dignity to countless individuals, making it a shining example of the Make in India spirit.

A.P. and Telangana resolve key river water issues in New Delhi meeting

Source: The Hindu

https://www.thehindu.com/news/national/andhra-pradesh/ap-and-telangana-resolve-key-river-water-issues-in-new-delhi-meeting/article69819711.ece

TGPSC Syllabus Relevance: Governance

Context: Krishna-Godavari Water Dispute

Why in News

- In a major step towards resolving inter-state water disputes, Andhra Pradesh and Telangana reached a consensus on Krishna-Godavari River water management.

Introduction

- In a landmark development, the long-standing disputes between **Andhra Pradesh and Telangana** over the Krishna and Godavari River waters witnessed a significant breakthrough.
- This occurred during a **high-level meeting** held in **New Delhi** chaired by the newly appointed **Union Jal Shakti Minister C.R. Patil**.
- The meeting saw the presence of both Chief Ministers – **N. Chandrababu Naidu (Andhra Pradesh)** and **A. Revanth Reddy (Telangana)** – as well as Water ReSources Ministers, senior irrigation engineers, officials from both States, and representatives of the **Central Water Commission (CWC)**.

Key Outcomes of the Meeting:

1. Installation of Telemeters for Transparency

- Both States **agreed to install telemeters** on the outflows from **reservoirs into canals**.
- This is aimed at **ensuring transparency** in water release data and **real-time information sharing** between the States.
- The step is significant in addressing trust issues that have existed due to alleged unilateral water withdrawals.

2. Preservation of the Srisailam Dam as Telugu Heritage

- Both States recognised the **Srisailam project** as a **symbol of Telugu heritage and pride**.
- They agreed to undertake **repairs and plunge pool protection** works at the dam site.
- The repairs will be carried out based on **recommendations from the CWC and expert panels**, indicating a commitment to scientific management.

3. Finalisation of River Management Board Headquarters

- After prolonged delays, a **mutual consensus** was reached on the headquarters of river management boards:
  - **Krishna River Management Board (KRMB)** will be based in **Amaravati**, Andhra Pradesh.
  - **Godavari River Management Board (GRMB)** will remain in **Hyderabad**, Telangana.
- This decision settles a **long-pending administrative issue** that had been a Source of contention post bifurcation.

Joint Committee on Polavaram–Banakacherla Link Project:

- Telangana had raised **technical concerns** over Andhra Pradesh's proposal for the **Polavaram–Banakacherla link project**.
- To resolve this, both States agreed to form a **joint technical and administrative committee**.
  - This committee will operate **under the supervision of the CWC**.
  - It is expected to be constituted by **Monday**.

Mandate of the Committee:

- Evaluate the **technical feasibility** and **environmental impact** of the proposed project.

- Explore the **utilisation of surplus Godavari waters**, with an estimated **3,000 TMC ft flowing into the sea annually**.
- Devise **scientific and equitable strategies** for diverting and storing this water for irrigation, drinking, and industrial purposes.

Significance of the Development:

1. Strengthening Federal Water Governance

- The agreement marks a **positive shift in inter-State water relations**, fostering **cooperation over conflict**.
- It reflects the **spirit of cooperative federalism**, as envisioned under the Indian Constitution.

2. Telugu Unity Beyond Politics

- Despite differing political ideologies and recent electoral competition, both Chief Ministers demonstrated **statesmanship and maturity**.
- Andhra Pradesh Minister Nimmala Ramanaidu termed the meeting a **"positive milestone"**, promoting **Telugu identity and solidarity** beyond administrative boundaries.

3. Role of the Centre as Mediator

- The central government's role through the Ministry of Jal Shakti and CWC was **crucial in facilitating dialogue**, showcasing the Centre's **neutral and enabling role** in resolving State-level disputes.

Challenges Ahead:

- While the agreements are constructive, **implementation will be key**. Past attempts at water-sharing resolutions have failed due to lack of enforcement.
- The **installation of telemeters**, creation of the **joint committee**, and actual **operationalisation of KRMB and GRMB** in their new locations will need close monitoring.

Conclusion:

- This agreement marks a **watershed moment** in inter-state river water management in India.
- If implemented effectively, it can serve as a **model for resolving other river water disputes** in the country, such as those between Karnataka-Tamil Nadu or Punjab-Haryana. Most importantly, it strengthens the idea that **dialogue, transparency, and scientific assessment** are essential tools for resolving complex federal issues.

Hyderabad's Bolarum saw highest ozone pollution this summer

Source: The Hindu

https://www.thehindu.com/news/national/telangana/hyderabads-bolarum-saw-highest-ozone-pollution-this-summer-says-study/article69819717.ece

TGPSC Syllabus Relevance: Environment and Ecology

Context: Ozone Pollution in Hyderabad

Why in News

A CSE study revealed that Hyderabad's Bolarum region experienced the city's worst ground-level ozone pollution in summer 2025.

Introduction

- Ground-level ozone pollution, a secondary pollutant formed through complex atmospheric reactions, has emerged as a serious air quality

challenge in several Indian cities.

- A recent study titled *"An Invisible Threat: Ground-level Ozone – Metro Cities"* by the **Centre for Science and Environment (CSE)**, based on data from the **Continuous Ambient Air Quality Monitoring System (CAAQMS).**
- It has revealed alarming trends in ozone pollution across five major cities—Hyderabad, Bengaluru, Mumbai, Kolkata-Howrah, and Chennai.
- While Hyderabad saw a significant decline in the number of ozone exceedance days compared to previous years, the **industrial belt of Bolarum** stood out as the most affected hotspot in the city.

Understanding Ground-Level Ozone Pollution

- **Nature of Pollutant**: Unlike primary pollutants like particulate matter or NO_2, **ground-level ozone is a secondary pollutant**, not emitted directly but formed by chemical reactions.
- **Formation Mechanism**: It is produced through **photochemical reactions** involving:
  - Nitrogen Oxides (NO_x)
  - Volatile Organic Compounds (VOCs)
  - Carbon Monoxide (CO)
- These precursors are emitted from **vehicles, power plants, factories, and other combustion Sources**.
- In the **presence of sunlight**, these substances undergo complex **cyclic reactions**, producing ozone at the ground level.

Key Findings of the CSE Study (March 1 – May 31, 2025)

1. Hyderabad's Ozone Pollution Profile

- **Total Exceedance Days**: 20 days
- **Worst Affected Location**: **Bolarum**
- Recorded **17 days** of exceedance
- Maximum ozone levels reached nearly **140 µg/m³**
- Safe standard: **100 µg/m³**
- Other Stations:
- **ICRISAT** – 2 days
- **Ramachandrapuram** – 1 day
- **Time Concentration**: Exceedances were **most frequent between May 2 and 20**

2. Positive Trends

- **Overall reduction** in ozone exceedance days by **55%** compared to summer 2024.
- **Winter 2024–25** showed significant improvement:
- Only **9 days** of exceedance compared to **43 days** during **winter 2023–24**.

3. Comparison with Other Cities

City	Ozone Exceedance Days
Bengaluru	45 (Highest)
Mumbai	32
Kolkata	22
Hyderabad	20
Chennai	15 (Lowest)

4. Seasonal and Temporal Trends

- Ozone levels are **now lingering post-sunset**, indicating **longer persistence** in the atmosphere.

- **Hourly average ozone peak** in May 2025 is **3% higher** than in May 2024.

Causes of High Ozone Levels in Hyderabad

- **Industrial emissions** in Bolarum region.
- **Vehicular pollution** and urban sprawl.
- **Natural Sources of VOCs** (e.g., vegetation) especially around ICRISAT.
- **Meteorological factors** like intense sunlight, stagnant wind patterns during summer.
- In winter, **cold and stagnant conditions** reduce vertical mixing, trapping pollutants.

Public Health and Environmental Implications

Health Impacts:

- Ozone can **inflame and damage airways**
- Aggravates **asthma, bronchitis, emphysema**
- Increases **susceptibility to infections**
- Vulnerable groups: **children**, **elderly**, **respiratory patients**

Agricultural Impact:

- **Reduces crop yields** by damaging plant tissues.
- Affects **food security**.
- **Regional Nature**: Ozone can **travel long distances**, affecting **non-urban and rural** areas as well.

Policy Implications and Recommendations

Strengthening Monitoring:

- Expand CAAQMS network in peri-urban and rural regions.
- Enable real-time public data access.

Emission Control:

- Strict implementation of **BS-VI norms** and **industrial emission standards**.
- Promote cleaner fuels and **electric mobility**.

Urban Planning Measures:

- Reduce traffic congestion through **mass transit systems**.
- Create **green buffers** around industrial zones.

Agricultural Policy Linkages:

- Incorporate ozone impact in **crop yield prediction models**.

Public Awareness:

- Launch health advisories on high ozone days.
- Encourage reduction of personal vehicle use during ozone peaks.

Conclusion

- The rise of **ground-level ozone pollution** in cities like Hyderabad underscores the **evolving nature of air pollution** in India. While progress has been made in tackling traditional pollutants like PM2.5 and PM10, **secondary pollutants** like ozone require more nuanced, **multi-sectoral approaches** involving **transport, industry, energy, and public health** sectors.
- The case of Bolarum serves as a warning signal for Indian cities to rethink their air quality strategies in light of changing climatic and chemical dynamics of the atmosphere.

National Geospatial Practitioner Award 2025 to INCOIS

Source: The Hindu

https://www.thehindu.com/news/national/telangana/national-geospatial-practitioner-award-2025-to-incois/article69824281.ece

TGPSC Syllabus Relevance: Awards and Honours

Context: National Geospatial Practitioner Award 2025

Why in News

INCOIS received the National Geospatial Practitioner Award 2025 for its innovative use of open-Source GIS tools in ocean services and coastal disaster management.

Introduction

- The **Indian National Centre for Ocean Information Services (INCOIS)** was conferred the **National Geospatial Practitioner Award 2025** for its exceptional application of **open-Source spatial technologies**.
- The award was presented at **Open Source GIS Day – Edition 02** held at **IIT Bombay**, by **former ISRO Chairman A.S. Kiran Kumar**.

About INCOIS

- **Full Form**: Indian National Centre for Ocean Information Services
- **Established**: 1999
- **Parent Ministry**: Ministry of Earth Sciences, Government of India
- **Headquarters**: Hyderabad, Telangana

• **Mandate**:

- Provide **ocean data, advisory services**, and **early warning information**.
- Facilitate ocean-related research and **marine spatial planning**.
- Develop and deploy **ocean observation systems** and **geospatial tools** for public, scientific, and commercial use.

National Geospatial Practitioner Award – Overview

- The National Geospatial Practitioner Award is a recognition conferred to organizations or individuals for exceptional contributions in the use of geospatial technologies, especially open-Source Geographic Information Systems (GIS).
- It is presented during the Open Source GIS Day, an event that celebrates innovations and applications of free and open-Source geospatial software in various domains.

Why the Award Was Given

• **Use of Open-Source Spatial Technologies**:

- INCOIS has effectively employed **open-Source GIS (Geographic Information Systems)** to:
  - Map and monitor **coastal vulnerability** and **fishing zones**.
  - Provide real-time **tsunami and storm surge alerts**.
  - Support **climate resilience** in coastal regions.
  - Enable decision-making for **marine reSource management**.

• **Public Accessibility**:

- INCOIS makes its spatial datasets and tools available to the public, government agencies, and researchers via its platforms.

• **Innovation & Indigenous Development**:

- By using **open-Source software**, INCOIS reduces dependence on expensive proprietary platforms and fosters **self-reliance (Atmanirbharta)** in geospatial

innovation.

Significance of the Award

- **National Geospatial Practitioner Award**:
  - Recognizes institutions that demonstrate **excellence in the application of geospatial technologies** for societal benefit.
  - Encourages the adoption of **open-Source GIS** across sectors like disaster management, environmental monitoring, and urban planning.
  - **Organized by**: Open-Source GIS Day platform, in collaboration with **academic institutions like IIT Bombay** and geospatial research bodies.

Applications of INCOIS's GIS Tools

1. **Potential Fishing Zone (PFZ) Advisories**:
   - Sent to fishermen using geospatial maps derived from satellite data.
   - Helps in **reducing fuel costs** and **increasing fish catch**.
2. **Tsunami Early Warning System**:
   - One of the most advanced in the world.
   - Provides alerts based on real-time seafloor and seismic activity monitored via satellite-linked buoys and GIS platforms.
3. **Coastal Vulnerability Mapping**:
   - Critical for disaster management and **coastal infrastructure planning**.
4. **Ocean State Forecasts**:
   - Forecasting tides, currents, waves, and temperature using GIS tools integrated with numerical models.

Relevance to Government Policy Initiatives

- **Aligns with**:
  - **Digital India** – through real-time digital data services
  - **Atmanirbhar Bharat** – through indigenous geospatial innovations
  - **Blue Economy Policy** – supporting sustainable ocean reSource use
  - **National Geospatial Policy 2022** – promoting the use of open data and open-Source tools for better governance

Conclusion

- The award to INCOIS highlights the growing importance of **open-Source geospatial tools** in national development and disaster preparedness. It reaffirms India's commitment to leveraging **scientific and technological innovation** for societal benefit, especially in climate-vulnerable coastal and marine zones.

Tiger population in the Amrabad Tiger Reserve

Source: The Hindu

https://www.thehindu.com/news/national/telangana/amrabad-now-has-36-tigers/article69823939.ece

TGPSC Syllabus Relevance: Environment and Ecology

Context: Tiger population

Why in News

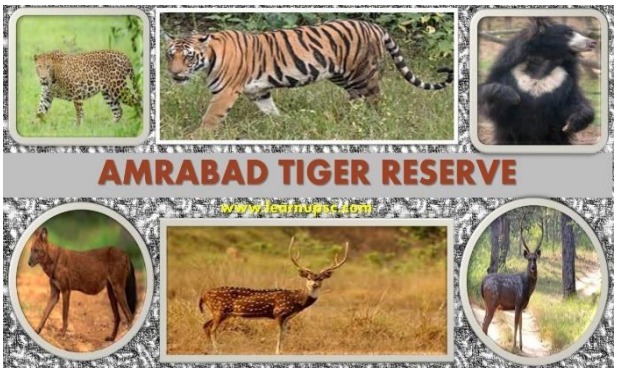
The 2024–25 Phase-IV monitoring exercise revealed a rise in the tiger population in Telangana's Amrabad Tiger Reserve.

Introduction

- The **Amrabad Tiger Reserve (ATR)** in Telangana has shown **encouraging growth in its tiger population**, as revealed by the **Phase-IV Tiger**

Monitoring Exercise for 2024–25, conducted under the protocols of the **National Tiger Conservation Authority (NTCA)**.

- This increase is a positive sign for tiger conservation efforts in one of India's most ecologically significant dry deciduous forest regions.



Key Findings of the 2024–25 Monitoring Exercise:

- **Total tiger population:** Increased from **33 (2023–24)** to **36 (2024–25)** — a **net increase of 3 tigers**.
- **Breakdown of tiger population (2024–25):**
  - **13 adult males**
  - **20 adult females**
  - **2 cubs**
  - **1 unidentified tiger**
- **Adult tiger count rose from 26 to 34**, indicating enhanced survival and maturity rates among juveniles and cubs.
- Compared to the **previous year (2023–24)**:
- **11 adult males**, **15 adult females**, and **7 cubs** were recorded.
- The data shows a **significant increase in breeding females**—from 15 to 20—pointing to **improved reproductive success** and **population resilience**.

Methodology of the Monitoring Exercise:

- The monitoring was conducted as per **NTCA's Phase-IV protocol**, which involves systematic and science-based assessment of tiger numbers at the reserve level.
- **Spatial & Technical Details: Time Period:** December 20, 2024 – May 15, 2025
- **Camera Traps:** A total of **1,594 camera traps** were deployed across **10 forest ranges**, divided into **4 spatial blocks** to ensure even and effective coverage.
- **Indirect Sign Monitoring:** Covered **797 grid locations** (each of 2 sq. km) to corroborate photographic evidence. **Indirect signs** such as **pug marks, scat samples, scrape and rake marks** were recorded to support tiger identification and movement analysis.

Significance of the Results:

- The increase in **adult tiger numbers**—particularly **breeding females**—is a strong indicator of **a stable and potentially growing population**.
- **Higher female-to-male ratio** improves the **future breeding potential** of the reserve.
- Successful reproduction and low mortality among sub-adult and adult tigers indicate that **protection measures, prey base, and habitat quality are improving**.
- The **presence of cubs** and an **unidentified individual** suggest possible under-detection and a healthy, expanding population.

Management and Conservation Efforts:

- Field Director **Rohit Gopidi** credited the **dedicated field staff** for their efforts in **monitoring, patrolling, and habitat**

management.

- The success is attributed to:
- **Strict protection protocols**
- **Regular habitat enrichment**
- **Prey base maintenance**
- **Effective implementation of NTCA guidelines**

About Amrabad Tiger Reserve (ATR):

- **Location:** Nallamala Hills, **Nagarkurnool and Nalgonda districts**, Telangana
- **Size:** Approximately **2,800 sq. km**, making it one of the largest tiger reserves in India.

Features:

- One of the **last remaining dry deciduous forest habitats** in the Deccan Plateau.
- Home to tribal communities like the **Chenchus**, who are involved in **eco-development and conservation efforts**.
- Key species include **sloth bears, leopards, wild dogs**, and a rich **prey base** of deer and wild boars.

Conclusion:

- The **positive growth of tiger population in Amrabad Tiger Reserve** is a testament to the **success of India's tiger conservation model**, particularly the **bottom-up, scientific, and community-inclusive approach**.
- It underlines the importance of **constant monitoring, adaptive management**, and **governmental support** in ensuring the long-term survival of India's national animal.

Classical violin maestro felicitated for lifetime of ragas in Hyderabad

Source: New Indian Express

https://www.newindianexpress.com/states/telangana/2025/Jul/21/classical-violin-maestro-felicitated-for-lifetime-of-ragas-in-hyderabad

TGPSC Syllabus Relevance: Awards and Honours

Context: 'Sangeetha Ratna' Award

Why in News

Renowned Carnatic violinist and Padma Shri awardee **Annavarapu Ramaswamy** was honoured with the **'Srimati** Vasantha **Varaprasad Reddy Sangeetha Ratna' award** for his extraordinary contribution to Indian classical music.

Who is Annavarapu Ramaswamy?

- **Annavarapu Ramaswamy** is a doyen of **Carnatic classical violin**, with a career spanning **over eight decades**.
- He is known for:
  - His mastery over **raga alapana**, **kalpana swaras**, and **tanam**.
  - Innovating new **ragas** and **talas**.
  - Dedication to **guru-shishya parampara** and **music philanthropy**.
- He was awarded the **Padma Shri** for his contributions to Indian classical music.

Recent Honour: Sangeetha Ratna Award

- Conferred the **'Srimati Vasantha Varaprasad Reddy Sangeetha Ratna' award** at a ceremony in **Telangana Saraswatha Parishath**, Hyderabad.
- Organised by the **Shantha Vasantha Trust**.

- The event marked Ramaswamy's **entry into his centenary year**.
- The award recognized his **lifelong devotion to the enrichment and teaching of Carnatic music**.

(**Source**: https://www.newindianexpress.com/states/telangana/2025/Jul/21/classical-violin-maestro-felicitated-for-lifetime-of-ragas-in-hyderabad)

Unique Features in Carnatic Violin Playing

- **Posture**: Unlike in Western music (where it's played standing/sitting on the shoulder), in Carnatic music, the violinist sits cross-legged with the scroll resting on the ankle and the body on the chest.
- **Tuning**: Tuned to **Sa–Pa–Sa–Pa** (usually in C# or D pitch), matching the tonic (shruti) of the vocalist.
- **Techniques**: Includes extensive use of **slides (meend)**, **oscillations (gamakas)**, and **microtonal variations** that are essential in raga expression.

Notable Carnatic Violin Maestros

- **Lalgudi Jayaraman** – Known for lyrical style and composed many varnams and tillanas.
- **T.N. Krishnan** – Known for his rich tone and emotive playing.
- **M.S. Gopalakrishnan** – Excelled in both Carnatic and Hindustani styles (a rare "double violinist").
- **L. Subramaniam** – Fused Carnatic with Western classical and global genres.

Language and Music: A Deep Connection

- **Telugu** is historically known as the "**Italian of the East**" for its **phonetic beauty** and suitability for **classical compositions**.
- Many **Carnatic kritis** (compositions), especially by composers like **Tyagaraja**, **Annamacharya**, and **Kshetrayya**, are in **Telugu**.

Significance in Indian Culture

- Ramaswamy represents the **continuity of India's intangible cultural heritage**.
- His life and teachings emphasize:
  - **Preservation of classical art forms**.
  - **Transmission of knowledge through oral tradition**.
  - The **integration of language, music, and identity**.

GO 49 to create new tiger conservation reserve kept in abeyance over Adivasi concerns

Source: The Hindu

https://www.thehindu.com/news/national/telangana/go-49-to-create-new-tiger-conservation-reserve-kept-in-abeyance-over-adivasi-concerns/article69839442.ece

TGPSC Syllabus Relevance: Environment and Ecology

Context: Kumurambheem Conservation Reserve

Why in News

The Telangana government has put on hold the proposal to create Kumurambheem Conservation Reserve, a tiger corridor between Kawal and Tadoba reserves.

Background:

- The Telangana State government, through Government Order (GO) No. 49 dated **May 30, 2025**, proposed the creation of **Kumurambheem Conservation Reserve**, aimed at enhancing tiger conservation by creating a corridor between the **Kawal Tiger Reserve (Telangana)** and **Tadoba-Andhari Tiger Reserve (Maharashtra)**.
- The plan sought to convert **1.49 lakh hectares** of forest land into a protected area.

Geographical Scope of the Proposal:

- The proposed conservation reserve spans multiple forest ranges in **Kumurambheem-Asifabad district**, including:
  - Asifabad
  - Kerameri
  - Rebbena
  - Tiryani
  - Kagaznagar
  - Sirpur
  - Karjelli
  - Bejjur
  - Penchikalpet

(**Source**s: https://telanganatoday.com/kumram-bheem-tiger-conservation-reserve-tough-challenge-ahead-for-forest-officials)

Concerns Raised:

- **Displacement Risk**: Over **330 tribal villages** would be affected by the reserve proposal, potentially resulting in mass displacement of Adivasi populations.
- **Violation of Forest Rights**: The proposed conversion would curtail **traditional livelihoods**, such as podu cultivation, NTFP collection, and grazing.
- **PESA Act Violation**: The tribal organisations argued that the move **violated the Panchayats (Extension to the Scheduled Areas) Act, 1996 (PESA)**, which mandates community participation and consent for land use changes in Scheduled Areas.
- **Lack of Consultation**: Adivasi leaders protested that **no Gram Sabhas were consulted**, violating both PESA and the **Forest Rights Act, 2006**.

Significance of the Decision:

- **Affirmation of Tribal Rights**: The move reinforces the importance of **tribal self-governance** and **constitutional safeguards** for Scheduled Areas.
- **Balancing Conservation and Rights**: It highlights the need to **balance ecological conservation with human rights**, especially in tribal belts.
- **Democratic Governance**: Demonstrates responsiveness to **grassroots mobilisation and protest**.

Relevant Constitutional and Legal Provisions:

- **PESA Act, 1996**: Empowers Gram Sabhas in Scheduled Areas to safeguard tribal customs, traditions, and control over natural re**Source**s.
- **Forest Rights Act, 2006**: Recognizes

forest-dwelling communities' rights over land and reSources.

- **Fifth Schedule of the Constitution**: Governs administration of Scheduled Areas and protects tribal interests.

Way Forward:

- **Participatory Conservation Models**: Conservation efforts should involve **local tribal communities** as stakeholders, not victims.
- **Transparent Consultations**: Any declaration of protected areas in Scheduled Areas should be preceded by **free, prior, and informed consent**.
- **Alternative Models**: Initiatives such as **Community Reserves** and **Eco-Development Committees (EDCs)** can promote **coexistence-based conservation**.

Multi-purpose centre equipped with AI-learning tools established at Limbuguda

Source: the Hindu

https://www.thehindu.com/news/national/telangana/multi-purpose-centre-equipped-with-ai-learning-tools-established-at-limbuguda-in-kumram-bheem-asifabad-district/article69843684.ece

TGPSC Syllabus Relevance: Governance

Context: Model Multi-Purpose Centre at Limbuguda

Why in News

A model Multi-Purpose Centre (MPC) equipped with AI-learning tools and health services was inaugurated in Limbuguda, Kumram Bheem Asifabad district, under the PM JANMAN scheme.

Introduction

- A **state-of-the-art Multi-Purpose Centre (MPC)** has been established in **Limbuguda village**, located in the remote **Wankidi mandal** of **Kumram Bheem Asifabad district**, Telangana.
- This MPC is being developed as a **pilot model** under the **PM JANMAN (Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan)** scheme, aimed at empowering particularly vulnerable tribal groups (PVTGs) through targeted infrastructure and service delivery.

Key Features of the Multi-Purpose Centre (MPC):

1. Education and Digital Learning Facilities

- The **Education Room** is equipped with **computer systems** and **AI-based learning tools**.
- It caters to students of **Mandal Parishad Primary Schools** and **Tribal Welfare Primary Schools**, helping bridge the rural-urban digital divide.
- A **mini-library** supports reading, learning, and self-study.

2. Health Services

- The centre houses:
  - **Non-Communicable Disease (NCD) Screening Units**
  - **Antenatal Care (ANC) Check-up Facility**
  - **Telemedicine Services** for remote consultation with doctors.
- These health services help address the healthcare accessibility gap in tribal areas.

(**Source**: https://www.thehindu.com/news/national/telangana/multi-purpose-centre-equipped-with-ai-learning-tools-established-at-limbuguda-in-kumram-bheem-asifabad-district/article69843684.ece)

3. Cultural and Community Development

- The walls of the MPC are painted with **thematic and aesthetic murals**, celebrating **Adivasi heritage**, local legends, and cultural motifs.
- Special tributes are paid to **Gond freedom fighter Kumram Bheem**, reinforcing tribal identity and pride.

4. Livelihood and Entrepreneurship Support

- The centre serves as a **platform for tribal artisans and producers** to **market local products** and enhance income-generation.
- It hosts **interactive sessions, skill-building workshops, and meetings** through a projector-equipped conference room.

Institutional Support and Stakeholders Involved:

- Developed under the **PM JANMAN scheme** (targeted at PVTGs).
- Implemented by the **Integrated Tribal Development Agency (ITDA), Utnoor**, with support from the **district administration**.
- Gained recognition and appreciation from **Minister of State for Road, Transport & Highways and Corporate Affairs Harsh Malhotra**.

Significance of the Model MPC

Dimension	Contribution
Education	Promotes digital literacy and AI exposure among tribal children
Healthcare	Ensures preventive healthcare and maternal support in remote regions
Cultural Revival	Strengthens tribal pride and local identity through artistic representation
Livelihood	Facilitates local market access and skilling of tribal communities
Governance	Enhances service delivery, outreach, and people's participation in governance

About PM JANMAN Scheme:

- **Launched in 2023**, this scheme focuses on the **comprehensive development of PVTGs** across 18 states and Union Territories.
- Covers **education, health, housing, skill development, and connectivity**.
- Involves convergence of various schemes such as PMGSY, PMAY-G, SBM, Digital India, and NRLM.

Challenges and Way Forward:

Challenges	Suggestions
Ensuring sustainability and maintenance of the centre	Establish local tribal youth committees for upkeep
Digital literacy	Continuous training and

gaps	handholding for students and teachers
Connectivity and electricity issues in remote areas	Use of solar-powered backups and internet via BharatNet
Scaling the model	Replication in other PVTG regions through phased approach

Conclusion:

- The **Limbuguda Model Multi-Purpose Centre** stands as a **benchmark for inclusive tribal development**, integrating digital learning, health services, cultural preservation, and economic empowerment.
- If successfully replicated, such initiatives can become a **pillar of grassroots governance and inclusive growth**, particularly in areas inhabited by **particularly vulnerable tribal groups (PVTGs)**.

RTC to celebrate 200 crore free tickets worth thousands of crores under Maha Lakshmi scheme

Source: The Hindu

https://www.thehindu.com/news/national/telangana/rtc-to-celebrate-200-crore-free-tickets-worth-thousands-of-crores-under-maha-lakshmi-scheme-ponnam-prabhakar/article69842907.ece

TGPSC Syllabus Relevance: Governance

Context: Maha Lakshmi scheme

Why in News

The Telangana government's **Maha Lakshmi Scheme** has enabled 200 crore free bus rides for women across the state.

Background:

- The Telangana State Road Transport Corporation (TSRTC) announced a major milestone under the **Maha Lakshmi Scheme**, with **200 crore free bus tickets** issued to women passengers since its launch.
- Transport Minister **Ponnam Prabhakar** highlighted the social and economic impact of the scheme, which was implemented from **December 9, 2023**, coinciding with the day the **new Congress government assumed power in Telangana**.

About the Maha Lakshmi Scheme

- **Launched on**: December 9, 2023
- **Implementing Agency**: Telangana State Road Transport Corporation (TSRTC)
- **Target Beneficiaries**: All women residents of Telangana
- **Main Benefit**: Free bus travel across TSRTC services, including city, district, and inter-district buses.

(**Source**: https://www.thehindu.com/news/national/telangana/rtc-to-celebrate-200-crore-free-tickets-worth-thousands-of-crores-under-maha-lakshmi-scheme-ponnam-prabhakar/article69842907.ece)

Objectives of the Scheme

- **Empower Women Economically**: By eliminating transportation costs, women can save ₹4,000–₹5,000 monthly, allowing greater autonomy and financial flexibility.
- **Enhance Access to Opportunities**: Facilitates access to education, healthcare, employment, and markets, especially for women from rural and remote areas.
- **Promote Gender Equity**: Aims to remove barriers to mobility, a key factor in women's empowerment.
- **Support Public Transport**: Encourages the use of buses as a sustainable mode of transport.

Financial and Administrative Impact

- The Telangana government has released over **₹6,700 crore** to TSRTC to **reimburse the cost of free travel**.
- This financial support ensures the **fiscal sustainability** of the scheme without burdening the corporation.
- The government also emphasizes **employee welfare**, safety of passengers, and efficient service delivery.

Celebration of Milestone Achievement

- To mark the milestone of 200 crore free tickets, the state government has announced **statewide celebrations**:
- Events at **97 RTC depots** and **341 bus stations**.
- **Inspirational speeches** by women beneficiaries — vegetable vendors, teachers, students, businesswomen, pilgrims, etc.
- **Felicitation of frontline staff**: Five top-performing drivers, conductors, traffic guides, and security personnel at each depot will be honoured.
- **Competitions for students**: Essay writing, rangoli, and painting contests on themes like *Women Empowerment* and *Free Travel*.

Socio-Economic Impact

- **Improved Mobility**: Many women, especially from rural backgrounds, are now able to travel regularly to cities for work, education, and medical needs.
- **Increased Workforce Participation**: Easier and cost-free commuting enables greater female participation in formal and informal employment.
- **Enhanced School and College Attendance**: The scheme reduces dropout rates among girls due to affordability issues.
- **Empowerment of Marginalised Groups**: Includes women from economically weaker sections, helping reduce inequality in access to services.

Challenges and Considerations

- **Operational Load on RTC**: Increased footfall requires better fleet management and service scheduling.
- **Infrastructure Strain**: Bus depots and maintenance systems need periodic upgrades to handle demand.
- **Monitoring and Evaluation**: Continuous assessment is necessary to ensure quality of service and safety for women.
- **Scope for Expansion**: Inclusion of more bus categories or longer-distance services could widen impact.

Conclusion

- The Maha Lakshmi Scheme is a landmark social welfare initiative by the Telangana government that showcases how **targeted public transport subsidies** can lead to **tangible social**

transformation.

- By reducing mobility constraints, the scheme empowers women, enhances their economic participation, and builds a more inclusive society.
- The celebration of 200 crore free tickets is not only a policy success but a reflection of **people-centric governance**.

Telangana receives 8.6 lakh land pleas under Bhu Bharati drive

Source: New Indian Express

https://www.newindianexpress.com/states/telangana/2025/Jul/23/telangana-receives-86-lakh-land-pleas-under-bhu-bharati-drive-aims-to-resolve-most-by-august-15

TGPSC Syllabus Relevance: Governance

Context: Bhu Bharati drive

Why in News

Telangana Revenue Minister directed officials to resolve 8.6 lakh land-related applications received during the Bhu Bharathi Revenue Sadassulu.

Introduction

- Telangana Revenue Minister **Ponguleti Srinivasa Reddy** directed officials to **resolve land-related grievances** received during the **Bhu Bharathi Revenue Sadassulu** campaign by **August 15**
- A total of **8.6 lakh land-related applications** were received, reflecting widespread public engagement.

Key Features of the Initiative

1. Implementation of Bhu Bharathi Act

- The Bhu Bharathi Act aims at **streamlining land records**, resolving disputes, and ensuring **transparent land ownership**.
- During the Revenue Sadassulu outreach drive, **8.6 lakh applications** were submitted by citizens, mainly concerning:
  - Land ownership disputes
  - Record rectification
  - Land conversion and regularization (e.g., Sada Bainama cases)

(**Source**: https://bhubharati.telangana.gov.in/homePage?lang=en)

2. Sada Bainama Transactions

- Sada Bainamas (informal land sale agreements on plain paper without registration) remain a **significant Source of land litigation**.
- Since the matter is pending in the High Court, officials have been directed to be **prepared with solutions**, ensuring readiness for action once a legal pathway emerges.

Implications

For landowners & farmers:

- Faster resolution, reduced costs, more accessible appeals.
- Especially critical for those locked in disputes due to Dharani errors.

For the state government:

- A chance to restore trust in public institutions, deliver governance reform, and safeguard rural livelihoods.

For Telangana's long-term land governance:

- A potential model: transparent, grassroots-first, bolstered by digital mapping and statutory support

Conclusion

- Telangana's latest push to **resolve land disputes and deliver housing benefits** through efficient and accountable governance mechanisms demonstrates a **model of proactive public service delivery**.
- By setting deadlines, ensuring reSource availability, and protecting beneficiary rights, the state is aiming to reduce procedural injustice and improve **trust in governance systems**.

Rare Tamil inscription at TN references Kakatiya queen Rudramadevi

Source: Times of India

https://timesofindia.indiatimes.com/city/hyderabad/rare-tamil-inscription-at-tn-references-kakatiya-queen-rudramadevi/articleshow/122843808.cms

TGPSC Syllabus Relevance: Art and Culture

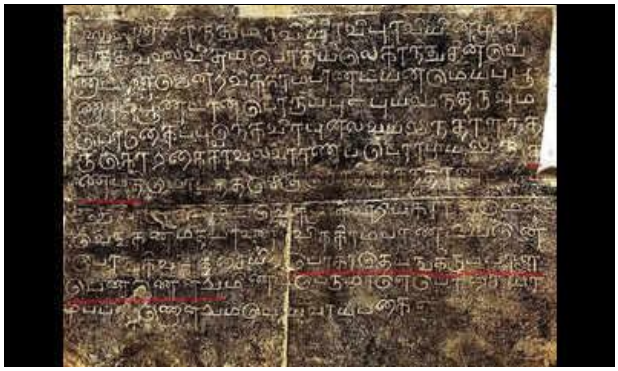
Context: Rare Tamil Inscription

Why in News

A newly discovered Tamil inscription at Chidambaram's Nataraja temple from Vikrama Pandya's reign refers to Kakatiya queen Rani Rudramadevi.

Background:

- A newly discovered Tamil inscription from the reign of **Vikrama Pandya** at the **Nataraja Temple in Chidambaram**, Tamil Nadu, offers rare epigraphic evidence of **Kakatiya queen Rani Rudramadevi**, one of the few women to rule as an independent monarch in Indian history.
- This find provides a fresh perspective on **inter-regional political awareness** and boundary recognition during the medieval period, especially between the Tamil and Telugu regions.



The Inscription: Location and Content

- **Location**: Western *gopuram* (gateway tower) of the **Nataraja Temple**, Chidambaram, Tamil Nadu.
- **Language**: Classical Tamil verse.
- **Time period**: Reign of **Vikrama Pandya** (early 13th century CE).

Key Details:

- Describes **Vikrama Pandya's victory** over **Venadan** (present-day **Travancore**) at **Podiyil Hills**.
- Refers to him with exalted titles such as **Bhuvanekavira** and **Korkaikavalan**.
- **Deliberately notes the absence of northern campaigns**, citing that the region was under the rule of **Rani Rudramadevi**, daughter of **Ganapati Deva**, the Kakatiya king of Warangal.

(**Source**: https://timesofindia.indiatimes.com/city/hyderabad/rare-tamil-inscription-at-tn-references-kakatiya-queen-rudramadevi/articleshow/122843808.cms)

Historical Significance

1. Rare Reference to a Woman Ruler

- This inscription is one of the **very few from Tamil Nadu** that explicitly mentions a **female sovereign** from the **Deccan region**.
- Rani Rudramadevi (r. c. 1262–1289 CE) is among the **few women in Indian history** to have ruled in her own name, adopting the male title of *Rudradeva Maharaja* in inscriptions.
- The acknowledgment of her rule in **another kingdom's inscription** reflects her **political legitimacy and territorial influence**.

2. Recognition of Inter-Regional Political Boundaries

- The inscription notes that **Vikrama Pandya refrained** from expanding his kingdom northwards due to the presence of a **recognized political authority**—Rudramadevi.
- This shows a **sophisticated understanding of territorial limits**, diplomacy, and political pragmatism in medieval India.
- It also indicates **epigraphic diplomacy**—where even omissions and acknowledgments were used to convey messages about power dynamics.

Rani Rudramadevi: A Brief Overview

- **Dynasty**: Kakatiya (based in Warangal, modern-day Telangana)
- **Father**: **Ganapati Deva**, who groomed her as heir due to lack of male successors.
- Took the throne after her father's abdication and ruled **Deccan regions** including parts of Telangana, Andhra Pradesh, Odisha, and Karnataka.
- She **led military campaigns**, built fortifications (notably at Warangal), and promoted **public works**.
- Her reign faced internal resistance due to her gender but also saw **assertive governance and patronage of arts and temples**.

Contemporary Relevance

1. Cultural Integration and Regional Awareness

- The inscription's recognition of a **Deccan ruler in Tamil lands** highlights **cross-regional awareness**, challenging the notion that medieval Indian polities were isolated.
- It enriches our understanding of how **gender and power** were viewed beyond cultural boundaries.

2. Gender and Historical Memory

- The deliberate mention of **a woman monarch** as a reason to halt conquests shows **respect or strategic avoidance**—either way, it reflects **her influence**.
- Such inscriptions are vital to **recovering the memory of women rulers** from regional historical narratives often dominated by male figures.

Role of Epigraphy in Historical Reconstruction

- **Epigraphy (study of inscriptions)** plays a crucial role in understanding **political history, regional interactions, and social structures**.
- This discovery by the **Epigraphy Division of the ASI**, led by K. Muniratnam Reddy, underscores the

value of field archaeology and inscriptional analysis in revising and enriching Indian history.

Conclusion

- The Chidambaram inscription not only celebrates Vikrama Pandya's military success but also implicitly honours the **sovereignty of Rani Rudramadevi**, acknowledging her rule across the Eastern Deccan.
- It serves as a **testament to the interconnectedness** of medieval Indian polities, where **power, gender, and diplomacy** were deeply intertwined.
- As historical records like these surface, they provide essential corrections and additions to mainstream narratives, particularly about **women rulers and inter-regional dynamics**.

Tulsi Therapeutics Achieves Breakthrough in Stem Cell Therapy for Liver Failure

Source: The Hindu

https://www.thehindu.com/news/cities/Hyderabad/university-of-hyderabad-incubated-startup-announces-successful-animal-trials-of-stem-cell-therapy-for-liver-failure/article69849859.ece

TGPSC Syllabus Relevance: Science and Technology

Context: India's First Stem Cell–Exosome Breakthrough for Liver Failure

Why in News

Tulsi Therapeutics has achieved the world's first successful animal trial of a novel stem cell–exosome therapy for chronic liver failure.

Introduction

- Tulsi Therapeutics, a startup incubated at ASPIRE-BioNEST, University of Hyderabad, has achieved the world's first successful animal trial of a stem cell–exosome combination therapy for chronic liver failure, opening a new frontier in regenerative medicine.

Introduction

- India's biotech and innovation ecosystem has marked a **global milestone in regenerative medicine**.
- **Tulsi Therapeutics**, an Indian biotech startup incubated at **ASPIRE-BioNEST**, University of Hyderabad, announced the **first successful animal trial** of its investigational biologic **'Tulsi-28X'** — a novel combination of **mesenchymal stem cells (MSCs)** and **exosomes** for treating chronic liver failure.
- This represents a **paradigm shift** in liver treatment globally, offering a potential **non-transplant therapeutic pathway** for end-stage liver disease.

Chronic Liver Failure: India's Public Health Crisis

- **20% of global liver-related deaths** occur in India.
- **Liver transplantation** is currently the **only treatment** for end-stage liver failure.
- Limitations of transplantation:
  - High cost (₹20–30 lakh)
  - Shortage of organ donors
  - Long waiting lists
  - Risk of immunosuppression

Hence, there is a **critical need** for **non-invasive, affordable, and regenerative therapies**.

(**Source**: https://www.thehindu.com/news/cities/Hyderabad/university-of-hyderabad-incubated-startup-announces-successful-animal-trials-of-stem-cell-therapy-for-liver-failure/article69849859.ece)

What is Tulsi-28X?

- A **first-in-class regenerative therapy** using:
  - **Wharton's Jelly-derived Mesenchymal Stem Cells (WJ-MSCs)**
  - Their **native exosomes**
- Works by:
  - **Secreting growth factors and regenerative proteins**
  - **Reversing liver fibrosis**
  - **Stimulating repair** of diseased liver tissue

Scientific Results from Animal Trials

- **100% reversal** of liver fibrosis in treated group
- **0% mortality** among treated animals
- Compared to control group:
  - **Only 14% fibrosis reversal**
  - **43% mortality**
- Trials conducted in collaboration with:
  - **Indiana University (USA)** – Dr. Naga Chalasani
  - **PGIMER, Chandigarh** – Dr. Ajay Duseja
- Results presented at **AASLD 2024 Liver Conference, San Diego**
- Accepted in *Journal of Regenerative Medicine*

Global Significance of the Breakthrough

- **First-ever** animal trial of a **dual stem cell–exosome biologic**.
- No previous global record of such a combination tested in any animal model.
- Tulsi Therapeutics may become the **first biotech firm globally** to develop this category of biologics.
- Marks India's **transition from being a biotech consumer to a biotech innovator**.

Innovation Ecosystem Behind the Success

ASPIRE-BioNEST, University of Hyderabad

- **Incubation and infrastructure support** for biotech startups.
- Developed in partnership with **BIRAC** (Biotechnology Industry Research Assistance Council), DBT.
- Supported **75+ deep-tech startups** in life sciences.
- Awarded **Best Emerging Bio-Incubator** by BIRAC (2021).

India's Collaborative Model

- The platform was **conceptualized in the U.S.**, but **entirely developed in India** through:
  - **3 years of research**
  - Supported by **public research institutions**, private talent, and international partnerships

Next Steps: Human Clinical Trials

- Tulsi Therapeutics plans to conduct **human trials in collaboration with Nizam's Institute of Medical Sciences (NIMS)**, Hyderabad.

- If successful, **Tulsi-28X** could:
  - Become the first approved regenerative liver therapy
  - Eliminate the need for transplantation in many cases
  - Provide affordable care for millions

Constitutional & Policy Linkages

- **Article 21 (Right to Life)** – Access to affordable healthcare is part of the right to life.
- **National Biotechnology Development Strategy** – Focus on translational research and public-private partnerships.
- **Startup India Mission** – Encourages innovation in high-impact sectors like health-tech.
- **Make in India** – Promotes indigenous development of critical medical technologies.

Challenges Ahead

- **Regulatory Approvals**: Human trials and drug licensing from **DCGI**.
- **Cost & Accessibility**: Scaling production to maintain affordability.
- **Ethical Oversight**: Stem cell therapies must adhere to **ICMR and DBT guidelines**.
- **Infrastructure for Clinical Trials**: Need for pan-India trial readiness and long-term monitoring.

Biotech Institutions in Telangana

- Hyderabad hosts over **20 biotech incubators**, making it the city with the highest concentration of such facilities in India.
- Prominent institutions in the ecosystem include the **University of Hyderabad, National Institute of Animal Biotechnology (NIAB), National Institute of Pharmaceutical Education and Research (NIPER), Centre for Cellular and Molecular Biology (CCMB)**, and **C-CAMP**.
- **NIAB** in Gachibowli conducts **translational research in livestock biotechnology and pharmaceutical development**.
- Targeted **skilling initiatives** in the life sciences sector have empowered **rural youth**, with **78 students** recently securing jobs or internships in Hyderabad's biotech firms, earning over ₹3.5 lakh per year.

Notable Players & Emerging Startups

- **Established biotech firms** headquartered in Hyderabad include **Bharat Biotech**, **Biological E.**, **Laurus Labs**, and **Shantha Biotechnics**—leaders in vaccine development, biosimilars, APIs, and biologics.
- **PopVax**, a cutting-edge startup, is developing **mRNA vaccines** using **AI-driven protein design** and has initiated **US Phase I trials** under **NIH's Project NextGen**.
- **Revelations Biotech**, in collaboration with **Shaiva Group** and **Taranis Capital**, signed MoUs worth ₹1,360 crore. These projects focus on **preventive health and anti-diabetic solutions**, expected to generate **5,020 jobs** in Telangana's biotech sector. The total investment commitment stands at ₹2,125 crore.

Government Vision & Strategic Outlook

- The Telangana government aims to **transform the state into a US$1 trillion economy by 2047**, with biotechnology identified as a key growth driver along with defense and aerospace.

- Major infrastructure projects such as **Hyderabad Pharma City** (spread over **19,000 acres**) are being developed to support **large-scale life sciences and pharmaceutical manufacturing**, further strengthening the state's position as a global biotech hub.

Zaheerabad Industrial Area named priority node under Hyd-Nagpur corridor

Source: New Indian Express

https://www.newindianexpress.com/states/telangana/2025/Jul/23/zaheerabad-industrial-area-named-priority-node-under-hyd-nagpur-corridor-centre

TGPSC Syllabus Relevance: Infrastructure

Context: Hyd-Nagpur corridor

Why in News

The Centre has identified **Zaheerabad Industrial Area** as a priority node under the **Hyderabad-Nagpur Industrial Corridor** and is also considering approval for **Hyderabad Metro Rail Phase-II.**

Background:

- In two significant developments for Telangana's infrastructure and economic growth, the **Union Ministry of Commerce & Industry** and the **Ministry of Housing & Urban Affairs** addressed the **Lok Sabha** regarding:
- The prioritisation of **Zaheerabad Industrial Area (ZIA)** under the **Hyderabad-Nagpur Industrial Corridor (HNIC)**.
- The **pending approval for Hyderabad Metro Rail Phase-II**, as requested by Telangana MPs.
- These initiatives fall under broader frameworks such as the **National Industrial Corridor Development Programme (NICDP)** and **urban mass transit projects** aimed at sustainable development.

Part I: Zaheerabad Industrial Area – A Priority Node under HNIC

(**Source**: https://www.newindianexpress.com/states/telangana/2025/Jul/23/zaheerabad-industrial-area-named-priority-node-under-hyd-nagpur-corridor-centre)

Key Details:

- **Project Name**: Zaheerabad Industrial Area (ZIA)
- **Location**: Sangareddy District, Telangana
- **Corridor**: Hyderabad–Nagpur Industrial Corridor (HNIC)
- **Programme**: National Industrial Corridor Development Programme (NICDP)

Funding Structure:

- **Union Government Contribution (via NICDIT)**:
  - ₹596 crore as **equity**
  - ₹655 crore as **debt**
- **Implementing Agency**: A **Special Purpose Vehicle (SPV)** called **"NICDIT Zaheerabad Industrial Smart City Ltd"** has been formed.

- **Status**: Tendering for **Project Management for New Cities (PMNC)** is underway.

Significance:

- Aims to create **world-class industrial infrastructure** and attract **manufacturing investments**.
- Part of the government's broader goal of enhancing **multi-modal logistics connectivity** and **industrial competitiveness**.
- Will support employment generation and regional development in **backward districts** of Telangana.

Part II: Hyderabad Metro Rail Phase-II – Request for Expedited Approval

- **Background:**
  - **Phase-I**:
  - **Length**: 69 km
  - **Corridors**: 3
  - **Cost**: ₹22,000 crore
  - **Outcome**: Significantly improved urban mobility in Hyderabad
- **Funding Model:**

Broader Significance for Telangana:

Initiative	Purpose	Broader Goal
Zaheerabad Industrial Area	Develop industrial infrastructure	Industrialisation under NICDP
Hyderabad Metro Phase-II	Improve public transport, reduce pollution	Urban mobility and climate resilience

- These initiatives reflect the **Centre-State cooperation** model.
- Aim to **align regional growth with national economic objectives** like Make in India, PM Gati Shakti, and Urban Mobility Mission.

Challenges:

- **Delays in clearance** for metro rail projects due to bureaucratic and inter-ministerial processes.
- **Land acquisition and environmental approvals** for large-scale industrial corridors.
- **Debt servicing** and financial closure for metro and industrial infrastructure.

Way Forward:

- **Fast-track approvals** by inter-ministerial coordination.
- Strengthen **state capacity** to implement smart city and corridor infrastructure.
- Use **PPP models effectively** to reduce public expenditure burden.

Conclusion:

- The prioritisation of **Zaheerabad Industrial Area** and the push for **Hyderabad Metro Phase-II** highlight Telangana's evolving role in India's industrial and urban transformation.
- These projects not only address **infrastructure bottlenecks** but also lay the foundation for **equitable and sustainable regional development** aligned with **India@2047 goals**.

Free legal aid clinic for defence personnel inaugurated in Hyderabad under Veer Parivar scheme

Source: Indian Express

https://www.newindianexpress.com/states/telangana/2025/Jul/27/free-legal-aid-clinic-

for-defence-personnel-inaugurated-in-hyderabad-under-veer-parivar-scheme

TGPSC Syllabus Relevance: Governance

Context: Veer Parivar Sahayata Yojana 2025

Why in News

Telangana's first Free Legal Services Clinic for defence families was inaugurated recently under the **Veer Parivar Sahayata Yojana 2025**.

Introduction

- In a significant move to empower India's defence community with accessible legal support, **Justice Sam Koshy**, Executive Chairman of the **Telangana State Legal Services Authority (TSLSA)**, inaugurated a **Free Legal Services Clinic** on **July 27, 2025**, at the **Sainik Welfare Office in Somajiguda**, Hyderabad.
- This initiative is part of the **Veer Parivar Sahayata Yojana (VPSY) 2025**, a nationwide scheme launched by the **National Legal Services Authority (NALSA)** under the guidance of **Supreme Court judge Justice Surya Kant**.

Objectives of the Scheme

The **Veer Parivar Sahayata Yojana 2025** aims to:

- Ensure **free legal assistance** to serving and retired defence personnel, paramilitary forces, and their families
- Address legal issues arising from **land disputes, pensions, service matters, family disputes**, and more
- Bridge the **access gap to justice** for soldiers posted in remote areas
- Empower families of servicemen with **legal literacy and grievance redressal mechanisms**

(**Source**: https://www.livelaw.in/columns/legal-aid-services-constitution-of-india-legal-services-authorities-act-nalsa-214034)

Key Features of the Free Legal Services Clinic

Feature	Description
Beneficiaries	Serving and retired defence personnel, paramilitary forces, ex-servicemen, and their families
Staffing	Each clinic is operated by a **panel lawyer** and a **trained paralegal volunteer**
Operating Days	Clinics function on the **1st and 4th Saturdays** of every month
Service Areas	Civil disputes, pensions, family matters, service-related grievances, legal documentation
Implementation Agency	Telangana State Legal Services Authority (TSLSA), in coordination with NALSA and Sainik Welfare Department
Expansion Plan	Clinics to be established in **all district headquarters**, with supporting **awareness campaigns**

Significance of the Initiative

- **Addressing Legal Isolation**: Many defence personnel serve in **remote, high-security zones** and are unable to pursue legal matters in person. This initiative provides a **local legal support structure**.
- **Empowering Defence Families**: Families of personnel, often underrepresented in legal processes, now have access to **professional legal aid without financial burden**.
- **Strengthening Civil-Military Welfare Integration**: As highlighted by **IPS officer Ravi Gupta**, this initiative strengthens the **welfare ecosystem** for those who serve the nation.
- **Awareness Generation**: By integrating **legal literacy campaigns**, the initiative aims to make **legal rights and entitlements accessible** to even the most marginalized defence families.

Challenges and Suggestions

Challenge	Suggestion
Limited Awareness	Conduct regular outreach programs through **Sainik Boards** and **veterans' associations**
Capacity Constraints	Increase the number of **panel lawyers** and **paralegal volunteers** in rural areas
Monitoring and Feedback	Establish **feedback and grievance redressal portals** integrated with legal aid delivery
Digital Inclusion	Create an online portal or **mobile app** to help families **book appointments**, access documents, and track cases remotely

Conclusion

- The **Free Legal Services Clinics under the Veer Parivar Sahayata Yojana 2025** symbolize the commitment of the Indian state to uphold the **constitutional promise of access to justice** for all, especially for those who defend the nation.
- More than a legal aid effort, it is an act of **institutional gratitude and civic responsibility**, ensuring that **no soldier or their family fights their legal battles alone**.

Telangana Records 452 Bird Species, Including First India Sightings

Source: Telangana Today

https://telanganatoday.com/452-bird-species-documented-in-telangana-study-records-first-sightings-for-india

TGPSC Syllabus Relevance: Environment and Ecology

Context: Comprehensive Bird Checklist of Telangana

Why in News

A comprehensive study by Osmania University and citizen scientists documented 452 bird species in Telangana.

Background:

- A landmark study documenting **452 bird species in Telangana**, including **first records for India**, was published in the *Journal of Threatened Taxa*.
- The work was jointly carried out by **Prof. Chelmala Srinivasulu**, a faculty member from the Zoology Department of Osmania University, and **Sriram Reddy**, a citizen-scientist and birdwatcher from

Hyderabad Birding Pals.

Key Highlights of the Study

Aspect	Details
Species Recorded	452 bird species across various ecosystems in Telangana
Significant Firsts	First Indian records of species like the **Spur-winged Lapwing**
Threatened Species Noted	Presence of **critically endangered Indian vulture**, **lesser florican**, and other globally threatened birds
Habitats Covered	Wetlands, grasslands, forests, urban lakes
Collaborative Data Sources	Field observations, historical record reviews, community data via platforms like **eBird** and **iNaturalist**

(**Source**: https://telanganatoday.com/452-bird-species-documented-in-telangana-study-records-first-sightings-for-india)

Scientific and Ecological Significance

- **Indicators of Ecosystem Health**: Birds are considered effective bioindicators, reflecting the health of an ecosystem. The diversity and abundance of birds can reveal patterns of habitat degradation or recovery.
- **Baseline for Conservation Action**: This comprehensive checklist will serve as a baseline reference for biodiversity monitoring, research, and **state-level conservation planning**.
- **Correction of Outdated Records**: The study updates and corrects previous records that were either outdated or misidentified.
- **Citizen Science Integration**: Highlights the growing importance of **citizen participation in ecological research**, strengthening participatory environmental governance.

Conservation Imperatives Highlighted

- The study calls for **policy-level collaboration** between **researchers and government agencies** to identify and preserve habitats.
- Urges the development of **conservation awareness** among youth and citizens to **counter declining bird populations** due to habitat loss, pollution, urbanization, and climate change.

Forward and Backward Linkages

Backward Linkages:

- Aligns with national biodiversity documentation efforts under the **Indian Biodiversity Act, 2002**.
- Builds upon the work of the **Salim Ali Centre for Ornithology and Natural History (SACON)**.

Forward Linkages:

- Can feed into State Biodiversity Boards and **People's Biodiversity Registers**

(PBRs).

- Supports India's commitments under the **Convention on Biological Diversity (CBD)** and **SDG Goal 15: Life on Land**.

Conclusion

- This extensive documentation of bird diversity in Telangana is not just a scientific achievement but a **public engagement tool** that promotes conservation through knowledge-sharing.
- It underscores the role of both scientists and citizens in **protecting India's natural heritage** and calls for integrated efforts to safeguard vulnerable ecosystems.

Achievements of Tele-MANAS helpline in Telangana

Source: The Hindu

https://www.thehindu.com/sci-tech/health/how-tele-manas-helpline-in-telangana-became-a-lifeline-for-13-lakh-callers/article69861352.ece

TGPSC Syllabus Relevance: Public Health

Context: Tele-MANAS Initiative for mental health support

Why in News

The Tele-MANAS mental health helpline (14416) in Telangana has received over 1.38 lakh calls since 2022, offering free, round-the-clock mental health support, especially to vulnerable groups.

What is Tele-MANAS?

- Launched in **October 2022**, Tele-MANAS is a **toll-free, 24x7 national mental health helpline (14416)** under India's **National Tele-Mental Health Programme (NTMHP)**.

It aims to make **mental health services accessible, free, and confidential** to people across the country using a tiered system of care involving:

- **First-line support** via trained mental health counsellors,
- **Escalation to clinical psychologists or psychiatrists**, and
- **Referrals** to local **District Mental Health Programme (DMHP)** clinics or government hospitals in serious cases.

(**Source**: https://www.thehindu.com/sci-tech/health/how-tele-manas-helpline-in-telangana-became-a-lifeline-for-13-lakh-callers/article69861352.ece)

Tele-MANAS in Telangana: Key Facts

- **Operational Hub**: Institute of Mental Health (IMH), **Erragadda, Hyderabad**
- **Human ReSources**:
  - 2 Psychiatrists
  - 1 Clinical Psychologist
  - 14 Trained Counsellors
  - 2 Technical Coordinators
  - 2 Support Staff
- **Daily Call Volume**: 150–200
- **Total Calls (since launch)**: **1.38 lakh+** across **33 districts**

District-wise Distribution (Top 5)

District	Calls Received
Kamareddy	19,366
Hyderabad	9,904

Hanamkonda	8,086
Siddipet	7,911
Vikarabad	7,067

Common Mental Health Issues Reported

- Anxiety disorders
- Depression
- Suicidal thoughts
- Sleep disturbances
- Substance abuse
- Stress due to unemployment, illness, or financial hardship

Why Tele-MANAS Matters

1. **Bridges the Mental Health Gap**
   - India has a **severe shortage of mental health professionals** (approx. 0.75 psychiatrists per 100,000 people).
   - Tele-MANAS leverages **technology to bridge accessibility gaps**, especially in underserved rural and peri-urban areas.
2. **Anonymity and Accessibility**
   - Many callers feel **uncomfortable discussing mental health** issues with family or in-person professionals.
   - Tele-MANAS provides a **non-judgmental and anonymous environment**, breaking stigma and cultural silence.
3. **Youth-Centric Support**
   - Majority of callers are **young adults**, reflecting the **rising mental health burden** on India's youth due to academic pressure, social media influence, and job insecurity.
4. **Cost-Free and Confidential**
   - The service is **free of cost**, eliminating a major barrier to mental healthcare for **economically weaker sections**.
5. **Timely Crisis Intervention**
   - Suicidal ideation and psychiatric emergencies are handled promptly with **triage protocols**, **suicide risk assessments**, and **referrals** to district hospitals.

Challenges and Limitations

- **Follow-up Support**: Ensuring continued care beyond the helpline call is often difficult in remote or reSource-scarce areas.
- **Manpower Constraints**: Rising call volumes may overwhelm existing counsellors, risking burnout or reduced quality of care.
- **Awareness Gaps**: Many potential beneficiaries are **still unaware** of the 14416 helpline, especially in tribal and remote regions.
- **Digital Divide**: Those without access to a phone or mobile network still remain out of the service's reach.

Policy Implications and Way Forward

1. **Expand Helpline Capacity**
   - Recruit more mental health professionals and counsellors to meet growing demand.
   - Integrate **AI-based triage systems** for faster prioritization.
2. **Integrate with Ayushman Bharat Health Infrastructure**
   - Link Tele-MANAS with **Health & Wellness Centres (HWCs)** and **eSanjeevani** for better coordination of care.
3. **School and College Outreach**
   - Partner with educational institutions to make the helpline visible and accessible to students facing emotional distress.
4. **Multilingual and Regional Outreach**

- Ensure availability of counselling in **local languages** to cater to culturally diverse populations.

5. **Mental Health Awareness Campaigns**
   - Destigmatize mental illness through **community-led awareness drives**, radio spots, and social media outreach.

Conclusion

- Tele-MANAS is not just a technological innovation—it is a **humane intervention** in India's evolving mental health landscape.
- Its success in Telangana illustrates the **power of accessible, empathetic, and responsive public health systems**.

Kodad copper plates reveal early roots of Kakatiyas

Source: New Indian Express

https://www.newindianexpress.com/states/telangana/2025/Jul/29/kodad-copper-plates-reveal-early-roots-of-kakatiyas

TGPSC Syllabus Relevance: Art and Culture

Context: Kodad copper plates

Why in News

Recently discovered 9th–10th century Eastern Chalukya copper plate inscriptions from Kodad provide early genealogical references to the Kakatiya dynasty.

Background:

- A significant archaeological discovery has shed new light on the historical interconnections between two major dynasties of the Deccan—**the Eastern Chalukyas** and **the Kakatiyas**.
- In a remarkable find, **nine sets of copper plates**, dating back to the **9th and 10th centuries CE**, have been unearthed from a **Muslim graveyard in Kodad**, Telangana.
- Four of these inscriptions have been **deciphered by the Epigraphy Branch of the Archaeological Survey of India (ASI)**, offering valuable insights into dynastic lineages, land grants, temple patronage, and the **early genealogy of the Kakatiya dynasty**.

Historical Context: Eastern Chalukyas and the Kakatiyas

- The **Eastern Chalukyas** ruled the region of Vengi (present-day Andhra Pradesh) from the 7th to 12th centuries CE. They played a crucial role in shaping the **political and cultural landscape** of South India.
- The **Kakatiyas**, who rose to prominence in the 12th century CE with their capital at **Warangal**, are known for their **architectural and administrative achievements** and their resistance to the Delhi Sultanate.
- This discovery provides a **missing historical link** between these two dynasties and suggests a **gradual transformation of feudatory families**, like the Samanta Vetti lineage, into ruling powers.

(**Source**: https://www.newindianexpress.com/states/te

langana/2025/Jul/29/kodad-copper-plates-reveal-early-roots-of-kakatiyas)

Key Inscriptions and Their Significance

1. Ammaraja I Copper Plate (April 22, 921 CE)

- Belongs to **King Ammaraja I** of the Eastern Chalukya dynasty.
- Traces the **genealogy** from **Kubja Vishnuvardhana** (founder of the Eastern Chalukya line) to Ammaraja I.
- Records a **land grant of the village Pokarani** to the **Gundesvarabhattarakaya temple** in **Kakarti village**.
- This reveals the practice of **land donations to temples**, central to temple-based agrarian economies.

2. Vikramaditya II Copper Plate (March 6, 918 CE)

- Issued at the time of **Vikramaditya II's coronation**.
- Grants the village of **Kovuru** to **Lokamamba**, wife of **Gunda II**, who had died in battle **supporting the king's restoration**.
- Begins with a **prasasti (eulogy)** of the **Samanta Vetti family**, identified as **ancestors of the Kakatiyas**.
- Lists **Samanta Vetti, Gunda I, Erra, and Gunda II**—making this the **earliest known epigraphical reference** to the **Kakatiya lineage**.
- Highlights the **military alliances and loyalty** of feudatory families in dynastic power struggles.

3. Bhima I Copper Plate – Grant to Temple

- Dated to the reign of **Chalukya Bhima I (892–922 CE)**.
- Grants the village **Chunugiyapundi** for sustaining **rituals, food offerings, and education** at the **Sakalesvara Siva temple** in Kakarti village.
- Reveals the **role of temples as centres of religious, educational, and economic activity**.

4. Bhima I Copper Plate – Temple Origin

- Another plate linked to **Bhima I**.
- Attributes the **construction of the Sakalesvara Siva temple** to **Gunda I**, a member of the Samanta Vetti family.
- Strengthens evidence of the **cultural patronage and emerging prominence of the Kakatiya ancestors** during Chalukyan rule.

Language and Script

- The inscriptions are in **Sanskrit**, but written in the **early Telugu script**, providing valuable information for linguistic and epigraphic studies.
- Reflects the **transition of Sanskrit as a royal and religious language**, and **Telugu script development** during early medieval Andhra.

Broader Historical Significance

Linking Dynastic Histories

- These copper plates provide a **continuum of historical evidence** showing how **feudatory families like the Samanta Vettis evolved into powerful dynasties** like the Kakatiyas.
- It helps fill critical **genealogical and political gaps** between the Eastern Chalukyas and Kakatiyas.

Socio-Economic Structures

- The grants indicate a **land-based economy**, with temples as focal points for **reSource redistribution**, **education**, and **religious life**.
- Support for widows like **Lokamamba** through land grants shows **social recognition of service and sacrifice**.

Religious and Cultural Patronage

- The grants to Siva temples like **Sakalesvara** underscore the prominence of **Shaivism**.
- These temples were not just religious sites but **educational and economic centres**, which served local communities.

Conclusion

- The recent discovery of copper plates at **Kodad** is a landmark moment in Indian epigraphy and historical reconstruction.
- These inscriptions reaffirm the **importance of archaeological evidence** in tracing **dynastic evolution**, **cultural patronage**, and **regional power dynamics**.
- They also highlight how **local warrior families**, through **military service and temple building**, laid the foundation for **larger political aspirations**, as exemplified by the rise of the **Kakatiya dynasty**.

IITH director B.S. Murty appointed president of Indian Institute of Metals

Source: The Hindu

https://www.thehindu.com/news/national/telangana/iith-director-bs-murty-appointed-president-of-indian-institute-of-metals/article69869604.ece

TGPSC Syllabus Relevance: Governance

Context: Indian Institute of metals

Why in News

B.S. Murty, Director of IIT Hyderabad, was appointed President of the Indian Institute of Metals in 2025.

Introduction

- **B.S. Murty**, Director of **IIT Hyderabad**, was appointed as the **President of the Indian Institute of Metals (IIM)** during its 79th Annual General Meeting held in Kolkata.
- He will hold both the prestigious positions concurrently, with his term at IIT-H running until 2030 and the IIM presidency effective from August 1, 2025.

Profile of B.S. Murty

- A renowned metallurgical engineer with over **four decades of experience** in **metallurgical education, research, and innovation**.
- Prior to his directorship at IIT Hyderabad, Murty served as a **professor at IIT Madras** in the Department of Metallurgical and Materials Engineering.
- His research contributions have been significant in fields such as:
  - **Non-equilibrium materials processing**
  - **High entropy alloys**
  - **Advanced materials development**

About the Indian Institute of Metals (IIM)

- **Established in 1946** with a modest membership of 42, the IIM has grown into a premier institution with over **10,000 members** today.
- Its members represent a diverse community from **academia, industry, and research institutions**, engaged in **materials science, mining, and metallurgical engineering**.
- The institute serves as a **national advocate for innovation and research** in mining and metallurgical sectors and fosters collaboration between industry and academia.

(**Source**: https://www.thehindu.com/news/national/telangana/iith-director-bs-murty-appointed-president-of-indian-institute-of-metals/article69869604.ece)

Significance of the Appointment

1. Bridging Academia and Industry

- Murty's dual role as IIT-H Director and IIM President positions him uniquely to **strengthen the interface between academic research and industrial application**.
- This alignment is crucial for fostering **innovation-driven growth** in materials science and metallurgical engineering, which are key to sectors like manufacturing, defence, aerospace, and energy.

2. Boost to Research in Advanced Materials

- His expertise in **high entropy alloys and non-equilibrium processes** aligns with emerging trends in materials research aimed at developing **stronger, lighter, and more durable materials**.
- This can catalyse innovations essential for India's ambitions in **technology self-reliance (Atmanirbhar Bharat)**.

3. Leadership in National Metallurgical Community

- As President of IIM, Murty will guide policy advocacy, research collaborations, and knowledge dissemination among thousands of professionals.
- His leadership is expected to enhance **capacity building and skill development** in metallurgical education, supporting India's industrial competitiveness.

Broader Context: Metallurgy and Materials Science in India

- Metallurgy is a **foundation of industrial development**, contributing to sectors from **steel production to aerospace engineering**.
- India aims to leverage advancements in materials science for:
  - Sustainable mining practices
  - Development of **high-performance materials** for defence and infrastructure
  - Innovation in **energy-efficient manufacturing**
- Institutes like IIM play a pivotal role in driving research, innovation, and industry-academia collaboration in these fields.

Conclusion

- B.S. Murty's appointment as President of the Indian Institute of Metals at a time of rapid technological transformation reinforces the importance of **strategic leadership in metallurgical research and innovation**.
- His extensive academic and research background, combined with his role at IIT Hyderabad, can accelerate India's progress towards a **self-reliant, innovation-driven metallurgical sector**.

BITS Pilani Hyderabad scientists develop smart wound dressing to kill infection-causing bacteria

Source: The Hindu

https://www.thehindu.com/sci-tech/science/bits-pilani-hyd-scientists-develop-smart-wound-dressing-to-kill-infection-causing-bacteria/article69866071.ece

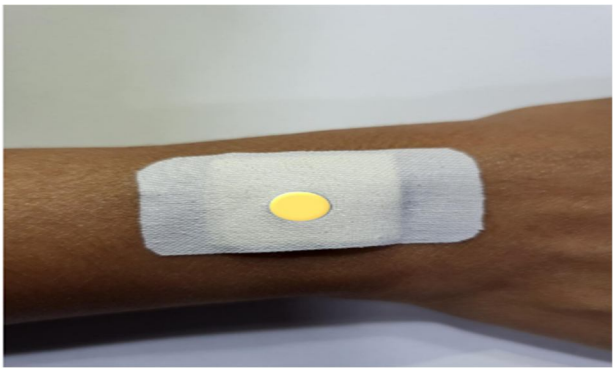
TGPSC Syllabus Relevance: Governance

Context: smart wound dressing

Why in News

Scientists from BITS Pilani Hyderabad have developed a smart wound dressing that kills bacteria and visually signals infection without using antibiotics, addressing antimicrobial resistance.

Background:



- An interdisciplinary team of scientists from **BITS Pilani Hyderabad campus** has developed a **smart wound dressing** that can both **kill infection-causing bacteria** and **visually signal the presence of infection** without relying on traditional antibiotics.
- Their research was recently published in the **ACS Infectious Diseases** journal of the **American Chemical Society**.

Key Features of the Smart Wound Dressing:

- **Antibiotic-Free Antibacterial Action:** The dressing incorporates **ionic silver functionalised fibres** that kill bacteria on contact, eliminating the need for antibiotics and thus helping in the fight against **Antimicrobial Resistance (AMR)**.
- **Infection Detection through Colour Change:**
  A **hydrogel layer** embedded with an **enzyme-specific colour-changing compound** acts as a sensor. Bacteria release enzymes upon colonisation, which migrate into this layer and trigger a **visible colour change** indicating infection.
- **User-Friendly Colour Analysis Application:**
  The team also developed a mobile **application** that analyses a photo of the dressing to instantly assess infection presence, enabling **quick and easy monitoring**.

(**Source**: https://www.thehindu.com/sci-tech/science/bits-pilani-hyd-scientists-develop-smart-wound-dressing-to-kill-infection-causing-bacteria/article69866071.ece)

Significance of the Innovation:

- **Early Detection and Timely Intervention:**
  Detecting infections at wound sites, especially in chronic or deep wounds, is often difficult and delayed diagnosis can lead to **prolonged healing, spread of infection, or sepsis**. The smart dressing enables **early detection** and timely treatment.
- **Addressing a Global Health Threat – AMR:**
  The development is crucial in tackling

the global challenge of **Antimicrobial Resistance (AMR)**, where traditional antibiotics are losing effectiveness due to overuse and misuse. The dressing's **antibiotic-free antibacterial mechanism** reduces dependency on drugs.

- **Point-of-Care Usability:** The dressing works without complex equipment or lab tests, making it suitable for **bedside care and home use**, improving accessibility and affordability.

Applications and Future Potential:

- The technology holds promise for management of **diabetic ulcers, post-surgical wounds, burns**, and other wounds prone to infection.
- The research team envisions developing **commercial products** such as infection-responsive bandages or integrated wound monitoring strips.
- This innovation could **revolutionise wound care** by combining treatment and real-time monitoring in a single, user-friendly product.

Support and Collaboration:

- The research was supported by the **Department of Science and Technology (DST), Government of India**.
- The interdisciplinary team includes scientists **Vaishnavi N., Ramakrishnan Ganesan, and Jayati Ray Dutta** from BITS Pilani Hyderabad.

Conclusion:

- The smart wound dressing developed by BITS Pilani Hyderabad represents a significant breakthrough in medical technology, combining antibacterial action with real-time infection detection without antibiotics.
- This innovation aligns with India's larger public health goals to combat AMR and improve patient care, especially in vulnerable populations.
- Its potential to be developed into accessible, user-friendly products could transform wound management and monitoring across healthcare settings.

IIIT-Hyderabad develops AI tool to make science videos

Source: Telangana Today

https://telanganatoday.com/iiit-hyderabad-develops-ai-tool-to-make-science-videos

TGPSC Syllabus Relevance: Science and Technology

Context: AI for Science Communication

Why in News

IIIT-Hyderabad, in collaboration with the Anusandhan National Research Foundation, has developed an AI-based tool.

Introduction

- In a major step towards **democratising scientific knowledge**, the **International Institute of Information Technology (IIIT), Hyderabad** has developed an **Artificial Intelligence (AI)-based tool** that transforms complex scientific research papers into simplified, accessible **video summaries in 11 languages**.
- The innovation is designed to help **non-science students and the general public** engage with cutting-edge research, enhancing science literacy and inclusivity in the research ecosystem.
- This tool, created in collaboration with the **Anusandhan National Research**

Foundation (NRF), marks a significant leap in using AI for **scientific communication and outreach**.

Context and Rationale

- Scientific research, especially in STEM disciplines, is often published in highly technical language that remains **inaccessible to non-specialists**.
- This creates a **knowledge divide**, particularly in countries like India where **language diversity and varying educational backgrounds** further widen the gap.
- To address this challenge, the IIIT-Hyderabad team was inspired by tools like **Google's NotebookLM**, which summarises documents into podcast formats.
- However, the team sought to make the content **visually engaging and multilingual**, resulting in the development of this **video summarisation tool**.

Key Features of the Tool

1. Simplification of Scientific Research

- Uses advanced **Natural Language Processing (NLP)** and **AI summarisation models** (e.g., Gemini, Claude, GPT) to extract the core messages of a research paper.
- Breaks down technical content into **easy-to-understand slides**, following a logical academic structure:
  - Introduction
  - Methodology
  - Results
  - Discussion
  - Conclusion

2. Multilingual Video Creation

- Enables creation of **concise video summaries (3–4 minutes)** in **11 languages**, including English.
- Uses **Sarvam's Text-to-Speech (TTS) engine** to convert scripts into **audio** with **customisable voice (male/female)** options.
- Designed for **visual learners** and **linguistically diverse** audiences.

3. Multiple Input Options

The tool supports three modes of uploading research content:

- Directly via **LaTeX Source files** (commonly used in academic publishing),
- By **importing papers from arXiv** using a URL,
- By **uploading a PDF** version of the paper.

4. User Interactivity and Editing

- Generates a **slide deck** with editable bullet points.
- Allows **customisation** before generating the final video.
- Helps researchers, teachers, and students **personalise outputs** according to audience needs.

Institutional Collaboration

- Developed by **IIIT-Hyderabad** with leadership from **Prof. Ponnurangan Kumaraguru**, Dr. Lakshmanan Natraj, and Rahul Sundar.
- Supported by the **Anusandhan National Research Foundation (NRF)** – India's apex body promoting **research, innovation, and knowledge dissemination** in higher education.
- Developed by a team including **Imandi Sai Ganesh, Arihant Rastogi, and Vishnu Sathwik**.

Significance and Implications

A. Promotes Scientific Temper (Article 51A(h))

- Helps realise the constitutional duty to develop a **scientific temper and spirit of inquiry** among citizens.

B. Improves Research Accessibility

- Empowers **non-science students**, rural learners, and undergraduates to understand cutting-edge scientific work.
- Supports **interdisciplinary learning** across disciplines in higher education.

C. Boosts Vernacular Science Communication

- Language barriers are a key reason for exclusion from academic knowledge.
- This tool enables communication of science in **regional languages**, contributing to **inclusive education** and **NEP 2020 goals**.

D. Enhances EdTech and AI in Education

- Demonstrates the potential of **AI in academia** not just for research but for **teaching, outreach, and equity**.
- Can be integrated into **MOOCs, digital classrooms, and science outreach initiatives**.

Challenges:

- **Accuracy of AI-generated summaries**: Ensuring technical correctness while simplifying.
- **Language nuances**: TTS systems need to handle regional variations and technical vocabulary.
- **User training**: Faculty and students may need orientation to use the tool effectively.

Suggestions:

- Expand support for **more Indian languages** under Schedule VIII.
- Integrate with **university research repositories** and platforms like **Shodhganga**.
- Encourage use in **school-level science education**, outreach camps, and digital India literacy campaigns.

Conclusion

- IIIT-Hyderabad's AI tool for science summarisation marks a **transformative step in making research accessible, understandable, and inclusive**.
- By combining **cutting-edge AI models** with **user-friendly design**, the tool addresses one of the core challenges in science education: **bridging the communication gap** between researchers and the public.
- This innovation supports the broader goals of **NEP 2020**, **Digital India**, and the vision of a **knowledge-based society**, and holds promise for replication across institutions in India and globally.

Telangana to launch new DISCOM, promote solar power for government buildings

Source: Telangana Today

https://telanganatoday.com/telangana-to-launch-new-discom-promote-solar-power-for-government-buildings

TGPSC Syllabus Relevance: Governance

Context: New DISCOM and Expand Solar Power Use

Why in News

Telangana government has announced the formation of a new DISCOM to manage free electricity schemes and promote solar energy adoption across government buildings and among ST farmers.

Background:

- In a significant policy move aimed at improving financial efficiency and promoting renewable energy, the **Government of Telangana**, under Chief Minister **A. Revanth Reddy**, has announced the creation of a **new power distribution company (DISCOM)**.
- The government also unveiled plans to **install solar power systems** across government buildings and expand **solar-powered agricultural initiatives**, particularly benefiting Scheduled Tribe (ST) farmers.

Creation of a New State-Level DISCOM

- The new DISCOM will function as a **State-wide utility** and operate **alongside** the two existing companies:
- **TGNPDCL** – Telangana Northern Power Distribution Company Limited
- **TGSPDCL** – Telangana Southern Power Distribution Company Limited
- Objective: To **handle all free power schemes** such as:
  - **Free electricity for agriculture**
  - **200 units of free power for households**
  - **Free electricity to schools and colleges**
- Rationale:
  - To **ease the financial burden** on existing DISCOMs
  - To **streamline subsidy accounting** and improve **transparency and accountability**
  - To **unify administration** of social power schemes under a single dedicated agency.

(**Source**: https://telanganatoday.com/telangana-to-launch-new-discom-promote-solar-power-for-government-buildings)

Solar Power for Government Buildings

- The government has directed officials to **submit proposals** for the **installation of solar power systems** in all:
  - Government schools
  - Colleges
  - State offices
- **District Collectors** have been instructed to **identify suitable buildings** for installation of **solar panels**.
- The **State Secretariat** will adopt solar energy through:
  - **Solar rooftop panels**
  - **Solar-fenced parking slots**

Solar-Powered Agriculture Pumps for ST Farmers

Under the **Indira Giri Jala Vikasam** initiative:

- **2.1 lakh Scheduled Tribe (ST) farmers** will be provided with **solar-powered pump sets**
- Objective: To promote **clean energy irrigation** and reduce dependence on conventional grid electricity.

Significance of the Initiative

1. Financial Sustainability of Power Sector

- Telangana's DISCOMs are under financial stress due to rising subsidies

and power procurement costs.

- A **dedicated DISCOM for subsidies** ensures:
- Clear tracking of government liabilities
- Easier access to loans and grants
- Better **cost allocation and management**

2. Promotion of Renewable Energy

- Solar installations in public buildings will:
- Reduce the **State's electricity bills**
- Lower **carbon emissions**
- Serve as a **model for decentralised clean energy**
- Encourages local manufacturing and **green jobs** in installation and maintenance sectors.

3. Empowering Marginalized Farmers

- Solar pump sets for **ST farmers** promote:
- **Energy independence** and **cost saving**
- **Sustainable agriculture**
- Improved access to **day-time irrigation**

Challenges and Considerations

- **Implementation hurdles** in setting up a new DISCOM (infrastructure, staff, systems integration)
- **Upfront costs** of solar panel installation
- Ensuring **maintenance** and **capacity building** in rural and semi-urban areas
- Need for a **regulatory mechanism** to avoid overlaps with existing DISCOMs

Way Forward

Link this initiative with central schemes like:

- **Kisan Urja Suraksha evam Utthaan Mahabhiyan (PM-KUSUM)**
- **UJALA (LED and energy efficiency programs)**
- Enable public-private partnerships (PPPs) for rapid solar deployment.
- Introduce **performance-based grants** for District Collectors to incentivize effective implementation.
- Ensure the new DISCOM remains **autonomous, efficient, and data-transparent**.

Conclusion

- Telangana's decision to set up a **dedicated DISCOM for free power schemes** and to **expand solar energy in government infrastructure** reflects a **strategic blend of welfare delivery and sustainable energy transition**.
- If implemented effectively, this model could serve as a **replicable framework for other Indian states** seeking to balance social welfare with financial and environmental sustainability in the power sector.