

APPSC

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News Summary (EM)

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APPSC News Summary

Andhra Pradesh–Australia MoUs: Clean Energy, Education and Skill Development Partnership

Source: [Deccan Chronicle](#)

Relevance: APPSC Clean Energy, Manufacturing, Skill Development, Innovation

Important Keywords

Prelims:

- Andhra Pradesh–Australia MoUs | Centre of Excellence for Solar Manufacturing | IIT Tirupati | UNSW Sydney | APSSDC

Mains:

- Clean energy cooperation | Solar manufacturing ecosystem | Inclusive education | Student mental health support | Global skill pathways

Why in News?

The Andhra Pradesh government and Australian institutions signed four MoUs covering clean energy, advanced manufacturing, inclusive education, student mental health and skill development. The agreements aim to strengthen Andhra Pradesh's cooperation with Australia in

research, innovation, education and workforce development.

Key MoUs Signed

1. Centre of Excellence for Solar Manufacturing

- The first MoU was signed among the Centre of Excellence for Energy Transition, IIT Tirupati and the University of New South Wales, Sydney.

It aims to establish a Centre of Excellence for Solar Manufacturing at IIT Tirupati.

Focus Areas

- Advanced solar photovoltaic manufacturing
- Solar panel recycling
- Circular economy practices
- Industry-driven research
- Faculty development
- Technology commercialisation
- Specialised training programmes

This will help Andhra Pradesh position itself as a hub for solar manufacturing and clean energy innovation.

Significance for Clean Energy

The proposed centre is important because solar energy is central to India's energy transition.

Support from the Australian institution will help in curriculum design, training and research in areas such as:

- solar cell manufacturing
- device physics
- reliability engineering
- recycling
- safety and maintenance
- ingot manufacturing
- wafering technologies

This can support both **renewable energy manufacturing** and **green jobs** in Andhra Pradesh.

Inclusive Education MoU

The second MoU was signed among **UNSW, Sri Padmavati Mahila Visvavidyalayam** and **Samagra Shiksha, Andhra Pradesh**.

It aims to strengthen **inclusive education** by improving the capacity of teachers to educate children with:

- autism
- neurodiverse learning needs
- special learning requirements

The partnership will focus on **specialised training, professional development and teaching resources**.

This is significant for building a more inclusive school education system in Andhra Pradesh.

Student Mental Health MoU

The third MoU was signed between the **Andhra Pradesh State Council of Higher Education** and Australia's **Rebound**.

It will implement a **technology-enabled pilot project** in selected higher educational institutions.

Features

- Confidential mental health resources
- Wellness assessment tools

- Virtual counselling services
- Free-of-cost pilot programme

This is important because student well-being is becoming a major part of higher education governance.

Skill Development MoU

The fourth MoU was signed between the **Andhra Pradesh State Skill Development Corporation** and Australia's **Dynamic Learning Services**.

It aims to strengthen:

- vocational education
- workforce development
- industry-aligned training
- globally recognised professional certifications
- international employment pathways

This can help Andhra Pradesh youth access better domestic and global employment opportunities.

Importance for Andhra Pradesh

1. Clean Energy Manufacturing Push

- The solar manufacturing centre can help Andhra Pradesh move from renewable energy generation to renewable energy manufacturing.

2. Higher Education Internationalisation

- Partnerships with Australian institutions can improve curriculum, research and faculty development.

3. Inclusive Human Capital Development

- Teacher training for neurodiverse children supports equitable education and social inclusion.

4. Student Well-being

- Mental health support in colleges can

reduce stress, improve learning outcomes and strengthen student support systems.

5. Global Skill Pathways

- Industry-aligned training and international certification can improve employability of Andhra Pradesh youth.

6. Investment-Friendly Image

- These MoUs strengthen Andhra Pradesh's image as a State open to global collaboration in education, research and innovation.

Conclusion

The Andhra Pradesh–Australia MoUs show a shift towards **knowledge-based cooperation** in clean energy, education and skills. By combining **solar manufacturing, inclusive education, student mental health and workforce development**, Andhra Pradesh can strengthen its human capital and industrial base. The success of these partnerships will depend on implementation, industry linkage and measurable outcomes for students and youth.

IIT Tirupati–UNSW Partnership: Boost to Solar Manufacturing Research in Andhra Pradesh

Source: [Deccan Chronicle](#)

Relevance: **APPSC Andhra Pradesh Economy, IIT Tirupati, Clean Energy, Industrial Innovation**

Important Keywords

Prelims Keywords:

- IIT Tirupati | UNSW Sydney | CoEET Visakhapatnam | Solar PV Manufacturing | Circular Economy

Mains Keywords:

- Clean energy innovation | Solar manufacturing ecosystem | Industry-academia collaboration | Skill development | Energy transition

Why in News?

IIT Tirupati has signed an MoU with the University of New South Wales, Sydney and the Centre of Excellence for Energy Transition, Visakhapatnam to explore the establishment of a Centre of Excellence in Solar Manufacturing at IIT

Tirupati. The initiative aims to promote research, education, skill development and industry collaboration in solar manufacturing.

What is the MoU About?

- The MoU proposes the creation of a **Centre of Excellence in Solar Manufacturing** at IIT Tirupati.
- The centre will focus on strengthening Andhra Pradesh's capacity in **solar photovoltaic manufacturing, recycling, research and clean energy skill development**.
- This partnership is part of Andhra Pradesh's broader push to build a clean energy ecosystem that combines **technology, research, industry linkages and skilled manpower**.

Role of Key Institutions

1. IIT Tirupati

- IIT Tirupati will provide **academic infrastructure, faculty support and**

research collaboration for the proposed centre.

2. UNSW Sydney

- The University of New South Wales will support the development of **academic and professional training programmes** and provide expertise in **solar cell manufacturing and reliability engineering**.

3. CoEET, Visakhapatnam

- The **Centre of Excellence for Energy Transition** will facilitate **funding, industry partnerships, government coordination and administrative support**.
- CoEET has been established through collaboration among Andhra Pradesh power utilities, including **APDISCOMs, APGENCO and APTRANSCO**.

Focus Areas of the Proposed Centre

The proposed centre will work on:

- Solar photovoltaic manufacturing
- Solar panel recycling
- Circular economy practices
- Solar cell technology
- Reliability engineering
- Industry-oriented research
- Skill development and training
- Technology commercialisation

This makes the centre important not only for research but also for creating a practical solar manufacturing ecosystem.

Significance for Andhra Pradesh

1. Clean Energy Manufacturing Hub

- The initiative can help Andhra Pradesh move from renewable energy generation to **renewable energy manufacturing and innovation**.

2. Industry-Academia Collaboration

- The partnership brings together an IIT, an international university and State energy institutions, creating a strong platform for applied research.

3. Skill Development

- Training programmes can prepare engineers, technicians and researchers for the solar manufacturing sector.

4. Circular Economy Push

- Solar panel recycling and circular economy practices can reduce waste and improve sustainability in the renewable energy sector.

5. Support to Energy Transition

- The centre can contribute to India's larger goals of clean energy expansion, domestic solar manufacturing and net-zero transition.

Conclusion

The IIT Tirupati-UNSW-CoEET partnership marks an important step in Andhra Pradesh's clean energy journey. By focusing on **solar manufacturing, recycling, circular economy, research and skill development**, the proposed centre can help the State become a hub for clean energy innovation. Its success will depend on strong implementation, industry linkage and conversion of research into practical manufacturing solutions.

Rare Pangolin Spotted in Kamalapuram: Wildlife Rescue, Habitat Protection and Conservation Concerns

Source: [Deccan Chronicle](#)

Relevance: APPSC: Andhra Pradesh
Environment, Forest Administration, Wildlife
Rescue, Biodiversity

Important Keywords

Prelims Keywords:

- Indian Pangolin | Schedule I | Wildlife (Protection) Act, 1972 | CITES Appendix I | IUCN Endangered

Mains Keywords:

- Wildlife conservation | Habitat protection | Illegal wildlife trade | Human-wildlife interface | Ecological balance

Why in News?

A rare **pangolin**, locally known as “**alugu**,” was spotted in the **Kamalapuram municipal area** of **Kadapa district, Andhra Pradesh**. The animal was safely rescued by forest officials and will be released into a suitable forest area in the **Mydukur range** after necessary checks.

About Pangolins

- Pangolins** are rare, shy and mostly **nocturnal mammals**.
- They are locally known as “**alugu**” in parts of Andhra Pradesh.
- Their body is covered with **hard protective scales**.
- When threatened, pangolins usually **curl into a ball** and raise their scales.

- They have a **long sticky tongue** used to catch ants and termites.
- Pangolins are generally harmless and do not attack humans.
- They are mammals because they **give birth to young ones and nurse them with milk**.
- They play an important role in maintaining **ecological balance**.



Species of Pangolins

There are **8 species of pangolins** in the world.

African Pangolins

- Black-bellied Pangolin**
- White-bellied Pangolin**
- Giant Ground Pangolin**
- Temminck's Ground Pangolin**

Asian Pangolins

- Indian Pangolin**
- Chinese Pangolin**
- Sunda Pangolin**
- Philippine Pangolin**

The pangolin rescued in Kamalapuram is associated with the Indian range and is referred to as a rare **Indian pangolin** in the report.

Habitat and Distribution

- Pangolins live in **tropical forests, grasslands and agricultural areas**.
- They may also be found near **human settlements**, especially when habitats are disturbed.
- The **Indian Pangolin** is found across **India, Nepal, Sri Lanka and Bangladesh**.
- In the Kamalapuram case, forest officials suspected that the pangolin may have moved from nearby forest regions, possibly through the **Kundu River basin**.

Conservation Status

Category	Status
Indian Pangolin	Endangered on the IUCN Red List
Chinese Pangolin	Critically Endangered on the IUCN Red List
Indian and Chinese Pangolin in India	Protected under Schedule I of the Wildlife (Protection) Act, 1972
All 8 Pangolin Species	Listed under CITES Appendix I

CITES Appendix I prohibits international

commercial trade in pangolins and their parts.

Diet and Ecological Role

- Pangolins mainly feed on **ants and termites**.
- They help in **natural pest control** by reducing insect populations.
- Their digging activity helps in **soil aeration**.
- By controlling insects and improving soil health, pangolins support **ecosystem balance**.
- Their presence indicates the importance of conserving forest, grassland and riverine habitats.

Conclusion

The rare pangolin sighting in **Kamalapuram** is a reminder of the rich but vulnerable biodiversity around human settlements. Pangolins are harmless, shy and ecologically valuable mammals, but they face serious threats from habitat loss and illegal wildlife trade. Their protection requires strong law enforcement, habitat conservation and community awareness. The safe rescue of the Kamalapuram pangolin shows that local people and forest officials can together play a key role in wildlife conservation.

Andhra Pradesh's Growth Push: GSDP Recovery, Capital Expenditure and Infrastructure-Led Development

Source: [The Hindu](#)

Relevance: APPSC: Andhra Pradesh Economy, Amaravati, Polavaram, Infrastructure, Welfare and Growth

Important Keywords

Prelims Keywords:

- GSDP | Per Capita Income | Amaravati | Polavaram Project | Capital Expenditure

Mains Keywords:

- Regional development | Infrastructure-led growth | Investor confidence | Fiscal management | Inclusive welfare

Why in News?

Andhra Pradesh reported a **GSDP growth rate of 11.3% during 2024-26**, higher than Telangana's 10.7% for the same period. The State's economic strategy has placed emphasis on **capital expenditure, infrastructure development, investor confidence, Amaravati reconstruction, Polavaram project execution and welfare-linked growth**.

Andhra Pradesh's Growth Performance

Andhra Pradesh's recent economic performance reflects an attempt to restore growth momentum after a period of slowdown.

Indicator	Details
GSDP growth, 2014-19	13.5%
GSDP growth, 2019-24	10.3%
GSDP growth, 2024-26	11.3%
Telangana growth, 2024-26	10.7%
AP per capita income, 2025-26	₹2,94,507

The report also noted that the per capita income gap between Andhra Pradesh and Telangana widened from **₹55,817 in 2018-19 to ₹1,06,854 in 2023-24**.

Post-Bifurcation Economic Context

Andhra Pradesh faced major structural challenges after the **2014 bifurcation** of the erstwhile State.

1. Loss of Hyderabad

- Hyderabad had been a major economic, administrative and revenue-generating centre. Its loss created a significant institutional and fiscal challenge for Andhra Pradesh.

2. Need for a New Capital Ecosystem

- The State had to develop a new

administrative capital and associated urban infrastructure.

3. Resource and Infrastructure Gaps

- The State faced imbalances in resource distribution, industrial infrastructure and investment ecosystems.

4. Need for Industrial Diversification

- Post-bifurcation development required new industrial corridors, ports, airports, roads and logistics networks.

Capital Expenditure and Infrastructure Push

Infrastructure development has been placed at the centre of Andhra Pradesh's growth strategy.

Sector / Project	Allocation
Amaravati	₹10,000 crore
Polavaram Project	₹8,300 crore
Ports	₹5,437 crore
Jal Jeevan Mission	₹1,142 crore
Airports	₹2,302 crore
Road Infrastructure	₹3,439 crore

In addition, the Centre has sanctioned **₹38,800 crore for national highway projects** and **₹64,417 crore for railway projects** in Andhra Pradesh.

Major Growth Drivers

1. Amaravati Reconstruction

- The renewed focus on **Amaravati** is expected to strengthen administrative capacity, urban infrastructure and investor confidence.

2. Polavaram Project

- The **Polavaram irrigation project** is important for irrigation, drinking water

supply, agriculture, flood moderation and regional development.

3. Bhogapuram International Airport

- The **Bhogapuram International Airport** is expected to act as a growth catalyst for north coastal Andhra Pradesh by improving connectivity and supporting investments in ports, industries and data centres.

4. Industrial and Technology Sectors

The State is focusing on sectors such as:

- Information Technology**
- Artificial Intelligence**
- Pharmaceuticals**
- Steel**
- Irrigation infrastructure**
- Logistics and port-led development**

5. Transport Connectivity

- Investment in roads, ports, airports and railways can reduce logistics costs and strengthen Andhra Pradesh's industrial competitiveness.

Welfare and Inclusive Development Measures

Economic growth has also been linked with welfare and social mobility.

1. Women Entrepreneurship

- A target has been set to create **five lakh women entrepreneurs** during **2026-27**, with an allocation of **₹2,246 crore**.

2. Self-Help Group Credit

- Women's self-help groups secured bank loans worth **₹43,219 crore**, strengthening community-level economic participation.

3. Support for Weaker Sections

- Welfare measures have been directed towards women, Scheduled Castes, Scheduled Tribes, Backward Classes and minority communities.

4. Educational Support

- Coaching support is being provided for economically weaker students preparing for **IIT entrance tests, NEET and UPSC examinations**.

Netanna Sevalo Scheme: Andhra Pradesh's Handloom Welfare Push and Weaver Livelihood Security

Source: [Deccan Chronicle](#)

Relevance: APPSC: Andhra Pradesh Handloom Sector, BC Welfare, Chirala Textile Economy

Important Keywords

Prelims Keywords:

- Netanna Sevalo | National Handloom Day | Chirala Handlooms | NTR Pension Bharosa | Swadesh Darshan Scheme

Mains Keywords:

- Weaver livelihood security | Handloom economy | Cultural heritage | Rural non-farm employment | Inclusive growth

Why in News?

Andhra Pradesh launched the **Netanna Sevalo** scheme at **Chirala** in Bapatla district during the **12th National Handloom Day celebrations**. Under the scheme, **₹179 crore** was released to **71,536 eligible handloom families**, with each family receiving **₹25,000** as financial assistance.



About Netanna Sevalo Scheme

Netanna Sevalo is a welfare scheme aimed at supporting handloom families in Andhra Pradesh through direct financial assistance.

Feature	Details
Scheme	Netanna Sevalo
State	Andhra Pradesh
Launch Place	Chirala, Bapatla district
Total Assistance	₹179 crore
Beneficiary Families	71,536
Assistance per Family	₹25,000

The scheme is designed to provide immediate economic support to traditional weaving families and strengthen the livelihood base of the handloom sector.

Handloom Sector in Andhra Pradesh

- Handloom is a major part of Andhra Pradesh's cultural and rural economy. The State has several well-known weaving centres such as **Chirala, Venkatagiri, Dharmavaram, Uppada, Mangalagiri, Ponduru, Pedana, Srikalahasti and Narasapuram.**
- About **1.27 lakh** people depend on the handloom sector in the State. These weaving traditions represent both **living cultural heritage** and **rural non-farm employment.**

Major Support Measures for Weavers

1. Power Subsidy

Category	Benefit	Coverage
Handloom families	Free power up to 200 units/month	62,541 families
Powerloom	Free power up to 500	10,032

units	units/month	units
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This reduces the production cost for weaving households and small textile units.

2. Pension Support

- Under NTR Pension Bharosa, 85,000 weavers receive ₹4,000 per month. The pension support costs around ₹35 crore per month and ₹420 crore annually.

3. Cooperative Credit Support

- The State extended ₹79 crore in cash-credit support to 109 primary handloom cooperative societies. This can improve access to working capital and reduce dependence on informal credit.

4. Cluster Development

- Approval was given for 10 handloom clusters under the Small Cluster Development Programme at a cost of ₹10 crore. Cluster-based development can improve common facilities, production quality, skill upgradation and collective marketing.

Infrastructure and Market Initiatives

Several initiatives are being taken to strengthen the handloom ecosystem.

- Handloom Marketing Assistance Programme:** To improve market access for handloom products.
- Special facilities at Uppada:** To support a major weaving centre.
- Handloom Park at Mangalagiri:** To promote production, training and design support.
- Handloom and Handicrafts Museum at Shakhamuru, Amaravati:** To preserve and promote craft heritage.

- Sustainable Textile Recycling Unit in Visakhapatnam:** Proposed with an investment of ₹4,200 crore, linking textiles with circular economy.

Agreements with organisations, including Fabindia, are expected to improve promotion and marketing of handloom products.

BC Welfare and Social Justice Linkages

The handloom sector is closely connected with many traditional occupational communities. The State has also outlined wider welfare measures for Backward Classes and occupational groups.

Major Measures

- Draft BC Protection Act prepared.
- ₹505 crore assistance over two years to 1.34 lakh fishing families during the fishing-ban period.
- Mining leases proposed for Vaddera communities.
- Excise shop opportunities for toddy tappers.
- Additional ₹20,000 rooftop solar subsidy for eligible BC beneficiaries.
- Universal health insurance cover of ₹2.5 lakh proposed for every citizen.

These measures reflect a broader link between occupational welfare, social justice and livelihood security.

Chirala Textile Economy and Tourism Push

- Chirala has historically been a major textile centre and was known as "Mini Mumbai" because of its textile activity.
- The Suryalanka-Bapatla-Chirala coastal belt is proposed to be developed as a tourism destination. A ₹97-crore tourism

corridor from Suryalanka to Chirala under the Swadesh Darshan scheme can link textiles, coastal tourism and local employment.

- The launch of the **Bay of Bapatla** website, handbook and the **Bapatla LEAPS youth skill programme** also points to a wider local development strategy.

Conclusion

The **Netanna Sevalo** scheme is an important intervention for Andhra Pradesh's handloom families. It provides immediate financial support

while being part of a larger framework of power subsidy, pension support, cooperative credit, cluster development, market assistance and tourism linkage. However, the future of the handloom sector cannot depend on welfare alone. Sustainable revival requires better market access, design innovation, digital promotion, cooperative strengthening and youth participation. Andhra Pradesh's handloom economy can remain culturally vibrant and economically viable only when traditional weaving is converted into a dignified, competitive and future-ready livelihood.

Satellite Transponders for Fishermen: Andhra Pradesh's Push for Safety at Sea

Source: [Deccan Chronicle](#)

Relevance: APPSC: Andhra Pradesh Fisheries, Fishermen Welfare, Coastal Development

Important Keywords

Prelims Keywords:

- Satellite Transponder | PM Matsya Sampada Yojana | SOS Alert | Fishermen Safety | Blue Economy

Mains Keywords:

- Coastal livelihood security | Disaster preparedness | Technology-enabled governance | Marine safety | Fisheries welfare

Why in News?

The **Andhra Pradesh government** is distributing **free satellite transponders** to fishermen under the **Pradhan Mantri Matsya Sampada Yojana**. The devices were distributed at **Singarayakonda** to improve fishermen's safety by providing weather

alerts, SOS services and emergency rescue support while they are at sea.



What are Satellite Transponders?

- A **satellite transponder** is a communication device fitted on fishing boats to help track and communicate with fishermen at sea.
- In this initiative, the device is connected to fishermen's smartphones through **Bluetooth**. It helps them receive alerts and send emergency messages even when they are away from the shore.

Features of the Initiative

Feature	Details
State	Andhra Pradesh
Beneficiaries	Fishermen operating at sea
Scheme Linkage	Pradhan Mantri Matsya Sampada Yojana
Device	Satellite transponder fitted on boats
Connectivity	Connected to smartphone through Bluetooth
Main Use	Weather alerts, SOS messages and rescue assistance
Emergency Link	SOS messages sent to control rooms

How the System Helps Fishermen

The satellite transponders can help fishermen in four major ways.

1. Weather and Cyclone Alerts

- Fishermen can receive warnings about **adverse weather conditions, cyclones and sea-related risks**, helping them return to safety in time.

2. SOS Emergency Assistance

- During accidents or distress situations, fishermen can send **SOS messages** directly to control rooms for rescue support.

3. Prevention of Accidental Border Crossing

- The devices can alert fishermen when they accidentally move towards neighbouring countries' waters, reducing the risk of detention or legal complications.

4. Faster Rescue Coordination

- Since the system is trackable, rescue teams can identify the boat's location more easily and respond faster.

Welfare Measures for Fishermen

The State government also highlighted several welfare measures for fishing communities.

Measure	Purpose
₹20,000 assistance during fishing ban period	Income support when fishing activity is restricted
Pensions from 50 years of age	Social security for older fishermen
Subsidised nets and boats	Support for fishing livelihood
Quality life jackets	Physical safety at sea
Support for missing fishermen's families	Faster death certificates, pensions and accident assistance
Dedicated diesel bunks	Easier access to fuel subsidy
Modern fish market at Singarayakonda	Better marketing infrastructure
Permanent housing for local Yanadi community	Social welfare and housing security
Fisheries development boards at Visakhapatnam and Bhimavaram	Strengthening fisheries and aquaculture sectors

Conclusion

The distribution of **satellite transponders** to fishermen in Andhra Pradesh is an important step towards safer and technology-enabled fishing. By providing weather alerts, SOS communication and border-warning support, the initiative can reduce risks at sea and improve rescue response. However, its success depends on training, device maintenance, effective control rooms and inclusion of small fishermen. When combined with welfare measures such as ban-period assistance, pensions,

subsidised equipment, life jackets and market infrastructure, it can strengthen both **marine safety**

and **coastal livelihood security**.

Police Custody under BNSS: Supreme Court Clarifies Remand Window and Rights of the Accused

Source: [The Hindu](#)

Relevance: Indian Polity and Governance

Important Keywords

Prelims Keywords:

- Section 187 BNSS | Section 38 BNSS | Police Custody | Default Bail | Bharatiya Sakshya Adhiniyam

Mains Keywords:

- Due process | Custodial safeguards | Fair investigation | Rights of accused | Judicial supervision

Why in News?

The Supreme Court, in **State of Andhra Pradesh vs Suda Suresh Veera Venkata Naga Raju**, clarified the scope of **police custody under Section 187(2) of the Bharatiya Nagarik Suraksha Sanhita**.

Case Before the Supreme Court

- The case arose from a **custodial death investigation** in Andhra Pradesh. The investigating agency sought police custody because the victim's body was still untraced, original CCTV hard disks were yet to be recovered, and possible discoveries under the **Bharatiya Sakshya Adhiniyam** were expected.
- The magistrate had granted **eight days of police custody** and allowed the accused to nominate two advocates, with one advocate permitted to be present during

investigation. However, the order also stated that the custody period would not be extended under any circumstances.

- The Andhra Pradesh High Court later modified some conditions related to custody and advocate presence. The State challenged these restrictions before the Supreme Court, arguing that they affected the ability of the investigating officer to conduct an effective investigation.

Supreme Court's Key Rulings

1. Police Custody Window is Wider under BNSS

- The Court held that **Section 187(2) BNSS** expands the time window during which police custody may be sought. Police remand is not restricted only to the first 15 days after arrest.

2. Total Police Custody Still Capped at 15 Days

- The Court clarified that even though the window has expanded, the total police custody cannot exceed **15 days in the whole**.

3. Custody Can Be Granted in Parts

- Police custody may be granted in different spells if investigation later reveals fresh facts, leads, recoveries or discoveries.

4. No Absolute Non-Extendable Limit by Magistrate

- A magistrate or court cannot impose a blanket condition that police custody will

not be extended at all. Such a condition would defeat the legislative purpose of Section 187(2).

5. Additional Custody Allowed in the Case

- The Supreme Court permitted **seven additional days of police custody**, ensuring that the total police custody, including earlier custody, remained within the statutory limit of **15 days**.

Current Law on Police Remand under BNSS

Section 58 BNSS

- A person arrested without warrant cannot be detained by police for more than **24 hours**, unless further detention is authorised by a magistrate under **Section 187**.

Section 187(2) BNSS

- If investigation cannot be completed within 24 hours and there are grounds to believe that the accusation is well-founded, the magistrate may authorise detention. Police custody can be granted for a total period of **15 days**, either at once or in parts, during the initial **40 or 60 days** of the permissible detention period.

Section 187(3) BNSS

Judicial detention beyond police custody may continue up to:

- 90 days** for offences punishable with death, life imprisonment or imprisonment of 10 years or more;
- 60 days** for other offences.

If investigation is not completed within the prescribed period, the accused may claim **default bail**.

BNSS vs CrPC: Key Difference

Aspect	CrPC Section 167	BNSS Section 187(2)
Maximum police custody	15 days	15 days
When police custody could be sought	Generally within the first 15 days of remand	In parts during the initial 40 or 60 days
Reason for change	Narrow remand window	Allows custody when fresh leads emerge later
Default bail period	60/90 days	60/90 days

The main change is not in the total number of police custody days, but in the **timing** within which those days can be sought.

Conclusion

The Supreme Court's interpretation of **Section 187(2) BNSS** gives investigating agencies a wider window to seek police custody while keeping the total limit at **15 days**. This reflects the needs of complex investigations where fresh evidence may emerge later. At the same time, the judgment makes clear that the accused's right to meet an advocate does not extend to continuous lawyer presence during interrogation. The real test lies in implementation. Strong judicial supervision, custodial safeguards, video documentation and police accountability are essential to ensure that the expanded remand window strengthens investigation without weakening constitutional due process.

Lepakshi and Gandikota: Andhra Pradesh's Push for UNESCO World Heritage Recognition

Source: [Deccan Chronicle](#)

Relevance: APPSC Relevance: Andhra Pradesh History, Heritage Sites, Tourism Development, Lepakshi, Gandikota, Amaravati Buddhist Heritage

Important Keywords

Prelims Keywords:

- UNESCO World Heritage Site | Lepakshi | Gandikota | World Heritage Convention 1972 | Outstanding Universal Value

Mains Keywords:

- Heritage conservation | Cultural tourism | Sustainable infrastructure | State-Centre coordination | Civilisational heritage

Why in News?

The Centre has been urged to take special initiatives to secure **UNESCO World Heritage status** for **Lepakshi** and **Gandikota** in Andhra Pradesh.

The appeal was made during a meeting with the Union Tourism and Culture Minister in New Delhi. The request also included dedicated funds for **conservation, tourism infrastructure** and preservation of historical and archaeological sites in the State.

About the Demand

- The demand focuses on two key heritage sites of Andhra Pradesh: **Lepakshi** and **Gandikota**.
- **Lepakshi** is already on the **UNESCO**

Tentative List, and support has been sought to expedite its movement towards final recognition. Similar support has also been requested for **Gandikota**, which is known for its historical and natural-cultural landscape.

- The State government has been urged to prepare and submit the required **nomination dossiers** with guidance from the Union Tourism and Culture Ministry so that the World Heritage process can move forward.
- Special funds have also been sought for roads, drinking water, sanitation, information centres, trained guides, electricity and transport facilities around heritage sites.



Lepakshi and Gandikota: Heritage Importance

1. Lepakshi

- Lepakshi is associated with Andhra Pradesh's rich temple architecture, mural traditions and sculptural heritage. Its presence on the UNESCO Tentative List shows that it has already entered the formal preliminary stage of global heritage recognition.

2. Gandikota

- Gandikota, popularly known for its fort landscape and gorge setting, has potential for heritage-based tourism if supported by proper conservation, visitor facilities and sustainable infrastructure.

3. Amaravati Buddhist Heritage Link

The demand also highlighted the global significance of **Amaravati's ancient sculptures** preserved in London museums. This underlines the need to showcase Andhra Pradesh's **Buddhist and cultural heritage** at the international level.

About UNESCO World Heritage Sites

- UNESCO World Heritage Sites are landmarks or areas recognised by the **United Nations Educational, Scientific and Cultural Organisation** for their **cultural, historical or natural significance**.
- They are considered to have **Outstanding Universal Value**, meaning their importance goes beyond national boundaries and belongs to the shared heritage of humanity.
- As of **July 2026**, India has **45 UNESCO World Heritage Sites**, including **37 cultural sites**, **7 natural sites** and **1 mixed site**.
- Examples from India include the **Taj Mahal**, **Ajanta Caves**, **Western Ghats** and **Sundarbans National Park**.

World Heritage Convention and Selection Criteria

- The idea of World Heritage developed after **World War II**, when there was growing concern over the destruction of cultural and natural heritage.
- This led to the adoption of the **Convention Concerning the Protection of the World Cultural and Natural Heritage, 1972**, commonly called the **World Heritage Convention**. It came into force in **1975**, and India signed it on **14 November 1977**.
- To qualify for World Heritage recognition, a site must show **Outstanding Universal Value** and meet at least one of the ten UNESCO criteria.

Cultural Criteria Include

- masterpiece of human creative genius
- testimony to a civilisation or cultural tradition
- important example of architecture, technology or landscape
- association with events, beliefs or ideas of universal significance

Natural Criteria Include

- outstanding natural beauty
- evidence of Earth's evolutionary history
- ecological and biological processes
- important habitats for biodiversity conservation

Nominated cultural sites are assessed by **ICOMOS**, while natural sites are assessed by **IUCN**.

Legal Status and Responsibilities

Once a site is inscribed as a UNESCO World Heritage Site, it remains under the sovereignty of the concerned country. However, its protection becomes part of a wider international

responsibility.

The State is expected to:

- protect and conserve the site
- integrate heritage protection into planning
- avoid activities that damage heritage value
- submit periodic conservation reports
- promote awareness and heritage education
- seek international support where needed

Thus, UNESCO status is not only an honour; it also creates strong conservation responsibilities.

Conclusion

The demand for UNESCO World Heritage status for **Lepakshi** and **Gandikota** reflects Andhra Pradesh's effort to place its cultural heritage on the global map. UNESCO recognition can support conservation, tourism, local employment and cultural diplomacy. However, global status must be matched with strong documentation, scientific preservation, sustainable infrastructure and community participation. Andhra Pradesh's heritage policy should protect the past while creating responsible opportunities for the future.

AP State Climate Change Cell Suggests Steps to Protect Energy Sector from Climate Change

Source: [The Hindu](#)

Relevance: APPSC Group I: Andhra Pradesh economy, energy sector, climate policy

Important Keywords

Prelims:

- AP State Climate Change Cell, State Action Plan on Climate Change 2025–30, Renewable Energy, Green Hydrogen Hubs, EV Charging Stations, SDG 7

Mains:

- Climate-resilient energy sector, energy security, renewable energy transition, Greenhouse Gas emissions, extreme weather vulnerability, energy efficiency

Why in News?

- The **AP State Climate Change Cell (APSCCC)** has suggested measures to reduce the impact of climate change on the energy sector.

- These measures are part of the **Andhra Pradesh State Action Plan on Climate Change 2025–30**.
- The Cell has found that the energy sector in many **northern and central regions of Andhra Pradesh** is highly vulnerable to climate change.
- The plan focuses on renewable energy, green hydrogen, electric vehicle charging, energy efficiency and resilient infrastructure.

Background

- Climate change is expected to affect both **energy demand** and **energy supply**.
- Rising temperatures may increase the demand for cooling and electricity.
- Extreme weather events may damage power plants, transmission lines and energy infrastructure.
- Sea-level rise may affect power plants located in coastal areas.



- The energy sector itself contributes to climate change through **Greenhouse Gas emissions**, mainly due to fossil fuel use.

Climate Change and the Energy Sector

Climate change affects the energy sector in two ways:

1. Impact on Energy Demand

- Rising temperatures increase electricity demand.
- More energy is needed for cooling systems such as fans, air conditioners and refrigeration.
- Heat stress may increase demand in domestic, commercial and industrial sectors.

2. Impact on Energy Supply

- Extreme weather events can damage power plants and transmission networks.

- Variable rainfall can affect hydroelectric power generation.
- Sea-level rise can threaten coastal energy infrastructure.
- Fossil fuel supply chains may also be disrupted.

Eight Adaptation Measures Suggested

1. Increase Renewable Energy Share

- Increase renewable energy generation to **40% of the total energy mix**.
- Focus mainly on:
 - Solar energy
 - Wind energy

2. Establish Renewable Power Projects

- Establish 120 GW renewable power projects.
- This will reduce dependence on fossil fuels.
- It will help improve long-term energy security.



3. Develop Green Hydrogen Hubs

- Establish two environment-friendly hydrogen hubs.
- Combined capacity: 60 MW.
- Green hydrogen can support clean industrial growth.

4. Expand Electric Vehicle Charging Infrastructure

- Install one lakh fast and slow EV charging stations.
- This will support electric mobility.
- It will reduce fossil fuel use in the transport sector.

5. Retrofit Existing Buildings

- Implement energy efficiency measures in existing buildings.
- Retrofitting can reduce electricity consumption.
- It is important for urban climate resilience.

6. Promote Efficient Cooling Systems

- Create an enabling environment for market penetration of efficient cooling systems.
- This is important because rising temperatures will increase cooling demand.

7. Improve Energy Conservation Across Sectors

- Promote energy-efficient street lighting.
- Ensure 100% coverage of Energy Conservation Cells in:
 - Commercial sector
 - Industrial sector
 - Agriculture sector
 - Domestic sector

8. Improve Efficiency in Water Pumping and Lift Irrigation

- Increase energy efficiency in:
 - Drinking water pumping systems
 - Lift irrigation systems
- This is important for agriculture, water supply and rural infrastructure.

Significance of the Measures

1. Supports Clean Energy Transition

- More solar, wind and green hydrogen will reduce fossil fuel dependence.
- It will help lower Greenhouse Gas emissions.

2. Strengthens Energy Security

- Diversified energy sources make the State less vulnerable to supply shocks.
- Renewable energy can improve long-term energy stability.

3. Protects Infrastructure

- Climate-resilient planning can protect power plants, transmission lines and coastal energy assets.

4. Reduces Energy Demand Pressure

- Efficient buildings, cooling systems and street lighting can reduce electricity demand.
- This is important during heatwaves and peak summer months.

5. Promotes Sustainable Mobility

- EV charging infrastructure will support electric vehicles.
- It can reduce pollution and dependence on petrol and diesel.

6. Helps Agriculture and Water Supply

- Efficient pumping and lift irrigation systems reduce energy waste.

- This is important for farmers and drinking water supply.

7. Supports SDG 7

- The measures support **UN Sustainable Development Goal 7: Affordable and Clean Energy**.

Conclusion

The AP State Climate Change Cell's recommendations show that climate change is no longer only an environmental issue. It directly

affects energy security, infrastructure, agriculture, transport and economic development. For Andhra Pradesh, the energy sector faces both risks and responsibilities. It is vulnerable to rising temperatures, extreme weather events and sea-level rise, but it also has the potential to reduce Greenhouse Gas emissions through renewable energy, green hydrogen, electric mobility and energy efficiency. A climate-resilient and clean energy strategy is therefore essential for sustainable development in Andhra Pradesh.

Amaravati Educational Academy: Strengthening Social Infrastructure in the Capital Region

Source: [Deccan Chronicle](#)

Relevance: APPSC: Amaravati Capital Region, Education Infrastructure, Social Infrastructure, Andhra Pradesh Development

Important Keywords

Prelims Keywords:

- Amaravati | Abburaajupalem | DAV Amaravati Rythu Vidyalaya | Social Infrastructure | Grade 12 Education

Mains Keywords:

- Education access | Capital region development | Affordable quality education | Community participation | Institutional infrastructure

Why in News?

The foundation has been laid for a modern **educational and cultural academy** at **Abburaajupalem** in the **Amaravati capital region**. The project is estimated to cost **₹25 crore** and is expected to strengthen the educational and social infrastructure of the developing capital city.

About the Educational Academy

- The proposed academy will come up on a **three-acre site** near the **E3-N14 Junction** in **Abburaajupalem, Amaravati**.
- The school building is expected to have a built-up area of nearly **one lakh square feet**. Once fully developed, the institution is expected to accommodate around **2,500 students**.
- The academy is planned as a modern educational institution offering education up to **Grade 12** in the future.

Key Features of the Project

1. Affordable Quality Education

- The academy aims to provide **quality education at affordable fees**, making it relevant for families in and around the Amaravati capital region.

2. Phased Academic Expansion

- At present, the academy is conducting classes from **nursery to Grade 5**. Higher



classes will be introduced in phases from the coming academic years.

3. Modern Campus Infrastructure

- The proposed campus will include modern educational facilities for students, with a large built-up area and planned capacity for future expansion.

4. Cultural and Educational Focus

- The project is described as an educational and cultural academy, indicating that it may support both formal schooling and broader cultural development.

5. Capital Region Location

- Its location in Amaravati is significant because the area is witnessing residential, institutional and infrastructure development.

Role of Community Participation

- The project is being developed under the **DAV Amaravati Rythu Vidyalaya Vedantam Group**.
- It has been formed with the involvement of **local farmers and residents of Thullur Mandal**. AECA and other donors are also expected to contribute to the construction of the new campus.
- This community-based model is important because it reflects local participation in building educational infrastructure. It also shows how residents, farmers and donors can contribute to long-term social development in a new capital region.

Conclusion

The proposed **₹25-crore** educational academy at

Abburaajupalem is an important addition to Amaravati's growing social infrastructure. With a planned capacity of **2,500 students**, affordable education goals and community participation, the

project can support balanced development in the capital region. Its success will depend on timely execution, quality teaching, affordability and inclusive access for local communities.

Orvakal Drone City: Proposed National Hub for India's Drone Industry

Source: [The Hindu](#)

Relevance: APPSC Group I: Andhra Pradesh economy, industrial infrastructure and emerging technologies

Important Keywords

Prelims:

- Orvakal Drone City, drone sandbox, testing and certification, airspace clearance

Mains:

- Domestic manufacturing, industrial clusters, technology ecosystem, regulatory facilitation, regional development

Why in News?

- The Central and Andhra Pradesh governments are working together to transform **Orvakal Drone City in Kurnool district** into a national hub for drone manufacturing, research, testing, training and technological development.
- The project has already secured investments of approximately **₹130 crore** and could attract up to **₹5,000 crore** as the domestic drone industry expands.

About Orvakal Drone City

The project seeks to establish a comprehensive drone ecosystem at a single location.

Around **600 acres** have been allocated to bring together:

- Drone manufacturing
- Research
- Testing
- Training
- Technology development
- Drone applications
- Technical services

The facility is being developed in phases through coordination between the Andhra Pradesh government and the Union Ministry of Civil Aviation.



Development Status

First Phase

- 12 plots** have been identified.
- Eight plots** have been allotted to drone companies.
- Approximately **55 acres** have been assigned to firms for establishing manufacturing units.

Around 150 industry representatives, including CEOs, CXOs and CFOs, participated in discussions at the project site.

- Drone companies operating in **Hyderabad and Bengaluru** have shown interest in expanding their operations to Orvakal after inspecting the location.

Proposed Integrated Ecosystem

- The project is not confined to the production of drones. Its objective is to connect manufacturing with practical usage and supporting services.
- The cluster will enable companies and institutions involved in different stages of the drone value chain to function on a common platform. This can connect product development with testing, certification, training and commercial application.

Requirements Identified by the Drone Industry

Industry representatives highlighted three major requirements for the project.

1. Testing Facilities

- Dedicated infrastructure is required to evaluate drones after manufacturing and verify their performance.

2. Sandbox Facilities

- A controlled sandbox environment would allow companies to conduct trials and refine products before commercial deployment.

3. Faster Regulatory Clearances

Companies sought a dedicated system for obtaining:

- Airspace clearances
- Approvals for aerial testing

- Drone certification
- Other necessary permissions

A special committee will examine testing, certification, clearances and infrastructure requirements. Necessary measures are expected to be initiated within **three months**.

Demand and Investment Potential

- India's drone requirement may exceed **six lakh units**, whereas only around **40,000 drones** are presently available.
- The demand may eventually grow to a level where at least **one drone is required for every village**. This gap offers a substantial opportunity for domestic manufacturers and associated service providers.

Indicator	Status/Projection
Land allocated	600 acres
Investments secured	Around ₹130 crore
Potential investment	Up to ₹5,000 crore
Estimated national requirement	More than 6 lakh drones
Current availability	Around 40,000 drones

Employment Potential

Once fully developed, the project is expected to generate:

- Around **5,000 direct jobs**
- Approximately **25,000 indirect jobs**

Direct employment can emerge within manufacturing, research, testing and training. The wider ecosystem can support additional opportunities through technical services and drone applications.

Significance

Strengthening Domestic Manufacturing

- The facility can help expand indigenous drone-production capacity and address the large gap between national demand and existing availability.

Supporting Innovation

- Research, sandbox testing and certification facilities can enable companies to develop, examine and improve new drone technologies.

Attracting Technology Enterprises

- Interest from firms operating in Hyderabad and Bengaluru indicates Orvakal's potential to attract established drone companies.

Regulatory Facilitation

- A dedicated clearance system can reduce

delays in aerial testing and help companies move more efficiently from manufacturing to deployment.

Regional Industrial Development

- The project can attract technology investment and skilled employment to Kurnool district.

Conclusion

Orvakal Drone City seeks to address the complete requirements of the drone value chain within one industrial cluster. Its success will depend on the timely creation of testing facilities, clear regulatory processes and conversion of investment commitments into production capacity.

Andhra Pradesh's Regional Action Plan for Human-Elephant Conflict

Source: [Deccan Chronicle](#)

Relevance: APPSC Group I: Andhra Pradesh environment, protected areas and wildlife management

Important Keywords

Prelims:

- Project Elephant, Koundinya Wildlife Sanctuary, elephant corridors, Gaja Praja application

Mains:

- Human-elephant conflict, habitat fragmentation, wildlife passages, early-warning systems, interstate coordination

five years under a regional action plan to address human-elephant conflict. The plan follows a conflict-risk assessment conducted by the **Project Elephant Division of the Ministry of Environment, Forest and Climate Change** and the **Wildlife Institute of India**.

About the Regional Action Plan

The Project Elephant report was released in Visakhapatnam on **World Elephant Day**.

It covers four southern States:

- Andhra Pradesh
- Karnataka
- Kerala
- Tamil Nadu

The plan seeks to reduce deaths among people and elephants by improving monitoring, early warning, institutional coordination and protection of elephant movement routes.

Why in News?

Andhra Pradesh is set to receive **₹169.98 crore** over



Financial Allocation

The total proposed outlay for the four States is ₹999.87 crore, including ₹500 crore in Central assistance.

State	Share of Regional Plan
Karnataka	38%
Tamil Nadu	25%
Kerala	20%
Andhra Pradesh	17%

Karnataka receives the largest share, while Andhra Pradesh's allocation reflects its relatively recent but expanding elephant range.

Elephant Distribution in Andhra Pradesh

Andhra Pradesh is described as a **relatively new elephant range**. Elephants are believed to have returned from the **Hosur-Dharmapuri forests in the 1980s**.

The State's recorded elephant population increased from:

- 65 in 2017
- To 142 in 2023

Major Areas

Most elephants are concentrated in:

- Chittoor
- Tirupati
- Annamayya

Smaller groups are found in:

- Srikakulam
- Parvathipuram Manyam

The **Koundinya Wildlife Sanctuary and adjoining forests** form critical elephant habitats in the State.

Causes of Human–Elephant Conflict

Habitat Fragmentation

- Forests and traditional movement routes are increasingly divided by agriculture and infrastructure, forcing elephants to move through human-dominated landscapes.

Dependence on Forest Resources

- Cattle grazing and fuelwood collection increase human activity within elephant habitats, creating more opportunities for direct encounters.

Live-Wire Fencing

- Electrified fences used around agricultural fields have emerged as a major cause of elephant deaths.

Crude Explosive Devices

- Explosives placed to target wild pigs can also kill or injure elephants.

Linear Infrastructure

The following projects have increased fragmentation and movement risks:

- NH-716
- Bengaluru–Chennai Expressway
- Railway doubling in Tirupati

Weak Maintenance of Barriers

Encroachments and inadequate maintenance have reduced the effectiveness of elephant-proof trenches and solar fencing.

Human and Elephant Casualties

Human Deaths

Year	Deaths
2019–20	4
2020–21	6
2021–22	0
2022–23	5
2023–24	6

- Elephant deaths during the same period ranged between **four and ten annually**.
- These figures show that the conflict threatens both human safety and elephant conservation.

Asian Elephant

- **Species:** Asian Elephant — *Elephas maximus*
- **Project Elephant:** launched 1991–92
- **National Heritage Animal:** Elephant
- **Legal protection:** Schedule I under Wildlife (Protection) Act
- **Project Elephant:** Centrally Sponsored Scheme
- **Core conservation unit:** Elephant Reserve
- **Conservation approach:** Landscape approach
- **CITES:** Asian Elephant — Appendix I

Existing Measures in Andhra Pradesh

Elephant Task Force

- The task force supports field-level monitoring and response to elephant movement and conflict incidents.

Gaja Praja Mobile Application

The application allows people to:

- Report elephant movements

- Submit compensation claims

Community Alert Systems

- WhatsApp groups are being used to communicate local warnings about the movement of elephant herds.

Physical Barriers

The State has:

- Constructed **735 km of elephant-proof trenches**
- Installed solar fencing

These measures require regular maintenance and protection from encroachment to remain effective.

Major Recommendations of the Action Plan

Wildlife Passages

- Highways and railway projects should incorporate safe wildlife passages to protect elephant movement routes.

Early-Warning Systems

- Monitoring systems must provide timely information to villages and field personnel before elephants enter human settlements or agricultural areas.

Rapid-Response Teams

- Dedicated teams should respond quickly to conflict situations and guide elephants away from populated areas.

Functional Corridors

- Existing elephant corridors must be identified, protected and kept connected.

Interdepartmental Coordination

The Forest Department should work closely with:

- Electricity Department
- Railways
- Police
- Revenue Department
- National Highways Authority of India

Community Partnerships

- Farmers, local communities, non-governmental organisations and researchers should participate in conflict-management measures.

Interstate Cooperation

Andhra Pradesh, Karnataka, Kerala and Tamil Nadu should share:

- Information about elephant movements
- Conflict-management practices
- Monitoring experience

Elephant herds move across administrative boundaries; therefore, isolated State-level responses are insufficient.

Conclusion

Human–elephant conflict in Andhra Pradesh is linked to expanding elephant movement within fragmented and increasingly human-used landscapes. The regional action plan provides an opportunity to replace isolated responses with coordinated monitoring, corridor protection, infrastructure planning and community participation.

TTD Explores Robotic Dog for Wildlife Surveillance in Tirumala

Source: [Deccan Chronicle](#)

Relevance: APPSC Group I: Emerging technologies, wildlife monitoring and Andhra Pradesh current affairs

Important Keywords

Prelims:

- Quadruped robotic dog, LiDAR, thermal imaging, geo-tagged alerts

Mains:

- AI-enabled surveillance, human-wildlife interaction, difficult-terrain monitoring, technology-assisted patrolling

Why in News?

The **Tirumala Tirupati Devasthanams (TTD)** is evaluating a quadruped robotic dog for monitoring wildlife in the Tirumala forests and improving the safety of devotees using the **Alipiri-Tirumala footpath**. Officials reviewed its performance and suitability for surveillance in forest areas and terrain where regular human patrolling is difficult.

Purpose of the Initiative

The proposed system aims to:

- Detect wildlife movement near pilgrim routes
- Identify the location of animals
- Improve surveillance during poor visibility
- Alert devotees before animals approach
- Support forest, vigilance and security teams
- Reduce the immediate exposure of personnel to risky situations

Forest stretches adjoining the Alipiri footpath are being considered priority areas for its use.

Technical Features

The robotic dog is equipped with:

- Optical cameras
- Thermal-imaging cameras
- A 360-degree LiDAR system
- Multiple environmental and movement sensors
- Artificial-intelligence capabilities
- Live communication systems
- Sound and light systems

What is LiDAR?

LiDAR uses light-based sensing to map surroundings and detect objects and terrain. The 360-degree system allows the robot to observe its environment in all directions while moving.

Role of Thermal Imaging

Thermal cameras detect heat signatures. They can assist surveillance during:

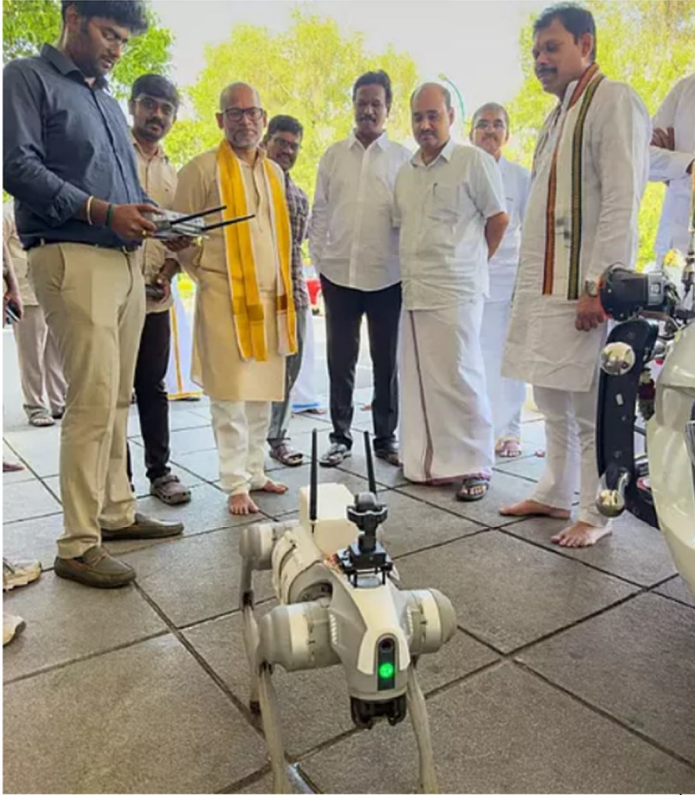
- Darkness
- Fog
- Other low-visibility conditions

AI-Based Classification

The artificial-intelligence system can distinguish among:

- Large wild animals
- Humans
- Vehicles
- Domestic animals

Such classification can help surveillance teams determine the nature of a detected movement before beginning a field response.



Working Mechanism

When the robotic dog detects wildlife, it can:

- Collect visual and thermal information.
- Identify the category of the detected object.
- Record the geographical location.
- Generate a geo-tagged alert.
- Transmit live video and thermal feeds.
- Send the information to the control room and patrolling teams.

Officials can assess the situation remotely and decide how forest, vigilance or security personnel should respond.

Proposed Areas of Use

Footpath Surveillance

- The robot may patrol areas adjoining the Alipiri-Tirumala walking route and detect

leopards or other wild animals before they enter pilgrim zones.

Difficult Terrain

- Its quadruped design may allow movement through locations where fixed equipment or regular human patrols face difficulty.

Reported Wildlife Locations

- Unlike a stationary system, it can be shifted to a site after officials receive information about animal activity.

Patrol Planning

Its sensors may gather data relating to:

- Terrain conditions
- Animal movement
- Frequently used routes
- Vulnerable locations

This information can guide patrol deployment and the placement of other surveillance equipment.

Sound and Light Deterrence

Officials are examining whether the robot's sound and light systems can discourage animals from moving towards pilgrim areas.

The objective is to:

- Maintain distance between people and wildlife
- Reduce direct encounters
- Limit the need for immediate human intervention

Its suitability for this role will form part of the evaluation process.

Robotic Dog and Fixed Camera Traps

Robotic Dog	Fixed Camera Trap
Mobile surveillance platform	Installed at one location
Can be moved to	Covers a predetermined

reported zones	activity	area
Provides live visual and thermal feeds		Records activity within its field of view
Collects terrain and movement information		Mainly monitors passing animals
Supports remote assessment		Requires placement at likely movement routes

The robotic system is intended to complement fixed surveillance rather than replace it.

Conclusion

The proposed robotic dog offers a mobile and AI-enabled addition to Tirumala's wildlife-monitoring network. Its usefulness will depend on reliable detection, communication and movement under real forest conditions, supported by existing surveillance systems and trained response teams.

Record ₹185.75-Crore AYUSH Plan Approved for Andhra Pradesh

Source: [Deccan Chronicle](#)

Relevance: APPSC Andhra Pradesh healthcare initiatives

Important Keywords

Prelims:

- National AYUSH Mission, AYUSH dispensaries, Ayushman Arogya Mandirs, ITDAs, telemedicine

Mains:

- Healthcare accessibility, tribal health, preventive care, medical infrastructure and digital health

Why in News?

The Centre has approved a record **₹185.75-crore Annual Action Plan for Andhra Pradesh's AYUSH**

sector for 2026-27. It is the highest annual allocation received by the State since the launch of the **National AYUSH Mission (NAM) in 2014.** The plan supports mobile medical units, dispensary modernisation, free medicines, educational institutions, digitalisation and specialised wellness facilities.

Allocation under the National AYUSH Mission

Period/financial year	Sanctioned allocation
2014-15 to 2023-24	₹120.17 crore
2024-25	₹83.23 crore
2025-26	₹165.66 crore
2026-27	₹185.75 crore
Total: 2024-25 to 2026-27	₹434.64 crore

No NAM funds were allocated or released during 2021–22, 2022–23 and 2023–24.

Tribal Healthcare Initiative

The plan provides for **19 mobile medical units** across nine Integrated Tribal Development Agency areas, including:

- Rampachodavaram;
- Chintur;
- Parvathipuram; and
- Paderu.

Each mobile team will include:

- an AYUSH medical officer; and
- a multipurpose health worker.

The units will provide tribal communities with:

- free medical examinations;
- free medicines;
- health awareness; and
- nutritional awareness.

Strengthening Dispensaries and Education

Dispensary Modernisation

- A total of **64 AYUSH dispensaries** will be modernised at a cost of **₹12.80 crore**.

Free Medicines

- An allocation of **₹22.16 crore** has been made to provide free medicines through **712 dispensaries**.

Educational Institutions

- The plan provides **₹38.84 crore** for strengthening AYUSH educational institutions.

Digitalisation of AYUSH Services

The plan includes:

- digitalisation of **601 dispensaries**;

- laptops for **157 AYUSH medical officers**;
- connectivity at **126 Ayushman Arogya Mandirs**; and
- telemedicine services.

These measures are intended to strengthen digital administration and extend medical consultation beyond physical facilities.

Specialised Treatment Facilities

De-addiction and Teaching Hospitals

The approved plan provides for:

- four alcohol de-addiction centres;
- Panchakarma facilities at four teaching hospitals; and
- yoga facilities at four teaching hospitals.

Sports Medicine

- An **AYUSH Sports Medicine Centre of Excellence** will be established at Kadapa.

Special Therapy Units

The Dr A.L. Government Ayurvedic Hospital in Vijayawada will receive:

- a special **Akshi Tarpana unit**; and
- a **herbal Kwatha therapy unit**.

Wellness and Integrated Healthcare Facilities

The plan supports:

- **58 speciality wellness centres**;
- six integrated AYUSH hospitals with **50 beds each**;
- naturopathy units in NRHM dispensaries;
- yoga wellness centres at the State Secretariat;
- yoga wellness centres in four major prisons; and
- an AYUSH clinic on the High Court premises.

Conclusion

The ₹185.75-crore plan significantly expands Andhra Pradesh's AYUSH infrastructure. Its focus on tribal outreach, dispensary modernisation, free

medicines, digitalisation and specialised care can widen healthcare access. Timely implementation and continuous monitoring will be essential to convert the allocation into effective services.

India's First Non-GMO High-Expansion Popcorn Maize Hybrid Launched in Andhra Pradesh

Source: [Deccan Chronicle](#)

Relevance: APPSC Agricultural innovation in Andhra Pradesh

Important Keywords

Prelims:

- Non-GMO, hybrid seed, popcorn maize, kernel expansion, tropical hybrid

Mains:

- Seed self-reliance, import substitution, farmer-industry partnership, agricultural innovation

Why in News?

India's first **non-GMO, high-expansion popcorn maize hybrid seeds** were launched at Musunuru in Eluru district, Andhra Pradesh. The indigenous hybrids seek to reduce India's dependence on imported technology for high-quality popcorn maize and develop seeds suited to Indian soil and climatic conditions.

About the New Popcorn Hybrids

The two popcorn maize hybrids have been developed for tropical agricultural conditions.

They are designed to provide:

- better adaptation to Indian soils;
- suitability to local climatic conditions;
- improved disease resistance;

- higher yield performance; and
- greater kernel expansion during popping.



What Does Non-GMO Hybrid Mean?

Non-GMO

- A **non-genetically modified organism** is developed without directly altering its genetic material through genetic-engineering techniques.

Hybrid Seed

- A hybrid is produced by crossing selected parent varieties to combine desirable agricultural characteristics.
- Therefore, **hybrid and genetically modified are not identical terms**. A crop can be a hybrid while remaining non-GMO.

What Is High Kernel Expansion?

- Kernel expansion refers to the increase in the size or volume of a maize kernel when it

is heated and popped.

High expansion is important for popcorn because it can provide:

- larger popped kernels;
- improved product quality; and
- better commercial value.

Scale of Popcorn Maize Cultivation

The private initiative associated with the hybrids currently involves:

- more than 17,500 farmers;
- operations across eight States; and
- popcorn maize cultivation on nearly 40,000 acres.

This indicates an emerging farmer-industry network for specialised maize cultivation.

Importance of Maize

- It Maize is India's **third most important food crop after rice and wheat.**

contributes to:

- food security;
- agricultural employment;
- farm incomes; and
- the wider rural economy.

Significance of the Indigenous Hybrids

Reduced Import Dependence

- India has depended on imported hybrid technology for high-quality popcorn maize. Domestic development can reduce this reliance.

Conservation of Foreign Exchange

- Replacing imported seed technology with indigenous hybrids can lower foreign-exchange expenditure.

Climate and Soil Adaptation

- Tropical hybrids suited to Indian conditions may perform better than seeds developed for different agro-climatic regions.

Improved Farm Productivity

- Better disease resistance, yield performance and kernel expansion can improve the commercial potential of popcorn cultivation.

Agricultural Self-Reliance

- Indigenous seed development strengthens domestic scientific and technological capability in agriculture.

Farmer-Industry Partnership

- The initiative connects seed developers, entrepreneurs and farmers in the production of a specialised crop.

Conclusion

The launch of indigenous non-GMO popcorn maize hybrids marks an important step towards seed self-reliance. Their long-term value will depend on consistent field performance, quality-seed availability, farmer training and dependable markets. Successful adoption can strengthen import substitution and create new income opportunities in specialised maize cultivation.

Seventh-Century Inscription Reveals the Antiquity of Guntur

Source: The Hindu

Relevance: GS Paper I – Indian History, Art and Culture; Andhra Pradesh History

Important Keywords:

- Epigraphy, Copper-plate inscriptions, Guntur, Eastern Chalukyas, Vishnuvardhana II, Toponymy

Why in News?

The Archaeological Survey of India's Director of Epigraphy, Dr. K. Munirathnam Reddy, has highlighted archaeological evidence establishing the antiquity of Guntur in Andhra Pradesh. The earliest known epigraphical reference to Guntur occurs in seventh-century copper plates associated with the Eastern Chalukya dynasty.



What Does the Inscription Reveal?

Earliest Reference to Guntur

- The first known inscriptional reference to Guntur appears in the **Pune copper plates** issued by Eastern Chalukya king **Vishnuvardhana II**.
- The plates date to the ruler's **first regnal year—669 CE**. They provide material evidence that the settlement was known and recorded nearly fourteen centuries ago.

Nature of the Evidence

Copper-plate inscriptions were generally used to record royal orders, grants and administrative transactions. Since they usually mention rulers, regnal years, places and beneficiaries, they serve as important primary sources for reconstructing history.

Evolution of Guntur's Name

- The inscriptions document changes in the city's name across centuries. Its nomenclature evolved through forms such as:
 - Kunturu
 - Gomturu
 - Gunturu
- A **10th-century Ederu copper-plate inscription** records the name as **Gomturu**. Regional inscriptions indicate that this form remained in continuous use from the **10th to the 14th century**.
- These variations reveal a gradual linguistic transition from ancient forms to the modern name, Guntur.

Historical Significance

1. Establishes Guntur's Antiquity

- The 669 CE reference pushes Guntur's documented history back to the seventh century and confirms its existence during the Eastern Chalukya period.

2. Traces Linguistic Change

- The changing spellings demonstrate how pronunciation, language and writing conventions evolved over time.

3. Reconstructs Regional History

- The inscriptions provide evidence about the historical geography and socio-political development of medieval Andhra Pradesh.

4. Highlights Eastern Chalukya Influence

- The records connect Guntur with the

Eastern Chalukya dynasty and help scholars understand the dynasty's administrative and territorial presence.

5. Demonstrates the Value of Epigraphy

- Epigraphy – the study of inscriptions – helps establish dates, place names, political authority and linguistic developments where literary evidence may be limited.

Conclusion

The Pune copper plates provide the earliest known epigraphical reference to Guntur, dating to 669 CE. Together with later records such as the Ederu inscription, they trace the transformation of the city's name and offer a tangible window into the political and linguistic history of medieval Andhra Pradesh.

Veligonda Project: Krishna Waters for Drought-Affected Andhra Pradesh

Source: [Deccan Chronicle](#)

Relevance: APPSC: Andhra Pradesh geography and irrigation projects

Important Keywords

- Veligonda Project, Krishna River, Srisailem Reservoir, Nallamala Sagar, Gravity Flow, Ayacut, Fluoride Contamination, Groundwater Recharge

Why in News?

Phase I of the **Veligonda Project** is scheduled to be inaugurated at Markapuram on **August 31, 2026**. The ₹10,200-crore project seeks to supply Krishna water to the drought-affected areas of Prakasam, Nellore and Kadapa districts for irrigation and drinking purposes.

Background

The foundation stone for the Veligonda Project was laid on **March 5, 1996**. Nearly three decades later, its first phase is set to become operational.

The project was conceived to address the major problems faced by western Prakasam and neighbouring regions, including:

- recurring crop failures;
- uncertain rainfall;
- fluoride-contaminated groundwater;
- drinking-water shortages;
- dependence on borewells; and
- migration caused by limited livelihood opportunities.

About the Veligonda Project

Particular	Details
Estimated cost	₹10,200 crore
Source of water	Krishna River
Intake location	Foreshore of Srisailem Reservoir
Destination reservoir	Nallamala Sagar
Water allocation	10.70 TMC
Method of transfer	Gravity flow through twin tunnels
Total ayacut	4.47 lakh acres
Coverage	30 mandals
Beneficiary districts	Prakasam, Nellore and Kadapa
Overall drinking-water target	Nearly 23 lakh people in fluoride-affected areas, in phases

What Is an Ayacut?

An **ayacut** is the agricultural area that receives irrigation from a canal, reservoir or irrigation project.

Project Infrastructure

Twin Tunnels

The project will convey Krishna water by gravity from the foreshore of the Srisailem Reservoir to Nallamala Sagar.

- It contains two tunnels.
- Their combined length is **18.8 km**.
- Gravity-based conveyance allows water to move without depending entirely on mechanical lifting.

Canal Network

The distribution system includes:

- 21.8 km of feeder canals;
- Teegaleru Main Canal;
- Gottipadiya Main Canal; and
- Eastern Main Canal.

These canals will carry stored water from Nallamala Sagar to the intended agricultural and drinking-water areas.

District-Wise Irrigation Coverage

Region	Proposed ayacut
Erstwhile Prakasam district	3.36 lakh acres
Nellore district	84,000 acres
Kadapa district	27,200 acres
Total	Approximately 4.47 lakh acres

The largest share of the irrigation benefit is intended for the drought-prone areas of the erstwhile Prakasam district.

Regional Development Strategy

Horticulture Hub

- The government plans to develop **Rayalaseema and the erstwhile Prakasam district as a horticulture hub**, supported by proposed investments of ₹1 lakh crore.
- Irrigation from the Veligonda Project is expected to provide the water base required for this development.

Transport and Logistics

The following infrastructure projects are expected to improve connectivity:

- national highways;
- Bengaluru–Amaravati Highway; and

- Ramayapatnam Port.

Improved connectivity can help transport agricultural and processed products to wider markets and create opportunities for industrial and commercial growth.

Conclusion

The Veligonda Project seeks to address the

interconnected problems of drought, unsafe drinking water, agricultural instability and migration. By carrying Krishna water from the Srisailem Reservoir to Nallamala Sagar, it can strengthen water security and create new opportunities for agriculture, horticulture, processing and employment in Prakasam, Nellore and Kadapa districts.

Odia Inscription of the Gajapati Era Found at Tekkali

Source: [Deccan Chronicle](#)

Relevance: APPSC: History and cultural heritage of North Coastal Andhra Pradesh

Important Keywords

Prelims:

- Tekkali Inscription | Gajapati Dynasty | Kapilendra Deva | Pratapa Kapileswara | Odia Script | Odia Language | Estampage | Palaeography | Kalinga Heritage

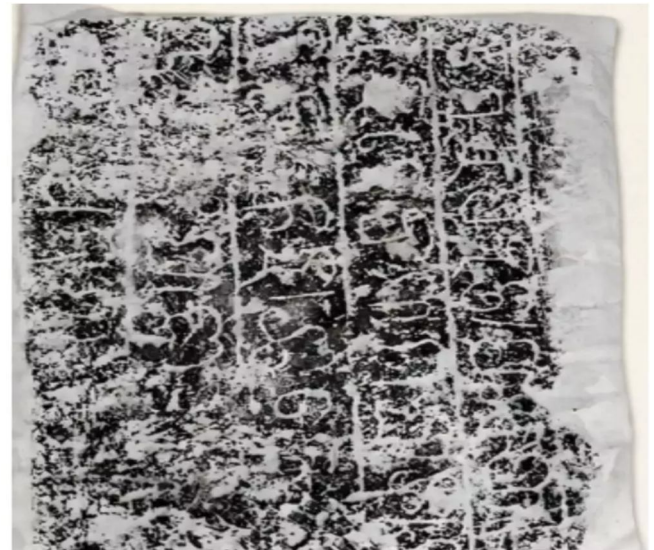
Mains:

- Epigraphical Sources | Odisha-Andhra Cultural Linkages | Regional History | Political Geography | Linguistic Heritage | Historical Continuity | Heritage Documentation | Inscription Conservation

Why in News?

A centuries-old inscription associated with the **Gajapati period** has been traced inside the Tekkali royal palace in Srikakulam district, Andhra Pradesh. Engraved in the Odia script and language, it contains the name "**Pratapa Kapileswara**," referring to Gajapati ruler Kapilendra Deva. The

discovery provides further evidence of Tekkali's historical connections with the Odisha kingdom.



Location and Discovery

The stone inscription was found at:

- **Place:** Tekkali royal palace
- **District:** Srikakulam
- **State:** Andhra Pradesh

The inscription was traced by researchers associated with an organisation that studies and documents Kalinga heritage in South India. A member of the Tekkali royal family assisted them in locating the stone.

Earlier Epigraphical Record

- The inscription was not entirely unknown to historical records. It had earlier been mentioned in the **Annual Report on Indian Epigraphy for 1926–27**.
- Using this reference, the researchers approached the Tekkali royal family and successfully located the stone within the palace premises.
- The discovery therefore represents the physical retracing and renewed documentation of an inscription that had been recorded approximately a century earlier.

Condition of the Inscription

The inscribed stone had been lying beneath a **Tulasi Choura** inside the palace.

Its condition is poor because:

- a considerable portion has been damaged;
- some parts have been lost over time;
- the first line is completely destroyed; and
- the surviving lines do not reveal the inscription's complete purpose.

Despite the damage, researchers obtained an **estampage** for further examination.

What Is an Estampage?

An estampage is an impression of an inscription taken on paper. It allows researchers to examine and document engraved letters without repeatedly handling or moving the original stone.

It is especially useful when an inscription is:

- weathered;
- partly damaged;
- difficult to move; or
- located in a vulnerable place.

Script and Language

The inscription is engraved in:

- Script: Odia
- Language: Odia

Its script and surviving words connect it with the Gajapati political and cultural tradition of Odisha.

What Does the Inscription Contain?

The surviving inscription consists of at least four identifiable lines.

Line	Surviving information
First line	Completely damaged
Second line	Contains part of the ruler's name
Third line	Contains "Pratapa Kapileswara"
Fourth line	Contains the expression "Bijeraije"

The name **Pratapa Kapileswara** refers to Gajapati Kapilendra Deva.

However, the damaged condition prevents researchers from establishing:

- the exact regnal year;
- the precise date;
- the complete nature of the record; and
- the purpose for which it was issued.

Probable Date of the Inscription

Kapilendra Deva ruled Odisha during the **15th century**.

Based on:

- palaeographic features; and
- the historical context,

the inscription is also likely to belong to the 15th century.

However, its exact date has not yet been confirmed and requires further scholarly investigation.

About Gajapati Kapilendra Deva

The inscription refers to Gajapati ruler **Kapilendra Deva** through the name “Pratapa Kapileswara”.

According to the researchers:

- he ruled Odisha during the 15th century; and
- during his reign, the Odisha kingdom extended from the **Ganga River in the north to the Kaveri River in the south.**

The inscription's presence at Tekkali reflects the historical reach of the Gajapati kingdom into parts of present-day North Coastal Andhra Pradesh.

Historical Importance of Tekkali

- Tekkali was formerly an ancient **Odia zamindari of Ganjam.**
- It later became separated from Odisha during the formation of the separate State of Odisha. Nevertheless, historical and cultural connections have continued.
- A significant number of Odia families still reside in Tekkali, indicating the persistence of linguistic and cultural ties.

Conclusion

The Tekkali inscription is an important epigraphical record of the Gajapati era. Its Odia script, Odia language and reference to “Pratapa Kapileswara” connect the region with the 15th-century rule of Kapilendra Deva. Although its exact date and purpose remain uncertain, the inscription provides valuable evidence of the political, linguistic and cultural links between Tekkali and the historical Odisha kingdom.