



Krishna Pradeep's  Since : 2003
21st Century IAS ★
Producing Next Generation Leaders for Good Governance
A/C Campus

APPSC

Prelims Cum Mains Based News Summary (EM)

Current Affairs

MAY - 2026

<https://t.me/kpiasacademy/6154>

TOPICS

APPSC News Summary

- Andhra Pradesh Emerging as a Major Centre for Beach Sand Mineral Exploration.....3
- Ponna Kaluva Utsavam at Tirupati5
- Naidu's Industrial Push for Andhra Pradesh: Structural Transformation, Strategic Depth and Emerging Risks8
- Pattadar Passbooks in Andhra Pradesh: Land Titling, Legal Validity and Governance Shift..... 10
- Japan Skill Mobility Partnership: Andhra Pradesh Youth in Japan's Automobile Manufacturing Sector..... 12
- Andhra Pradesh's Emerging Data Centre and Advanced Manufacturing Ecosystem..... 14
- 'Mee Intiki - Mee Doctor': Doorstep Healthcare for Poor Families in Andhra Pradesh 17
- AP Plans Cash Incentives for Third and Fourth Child 20
- Andhra Pradesh Deep-Tech Skilling Initiative: Building a Future-Ready Workforce 25
- Andhra Pradesh-Singapore Cooperation: Digital Trade Corridor, Amaravati Economic Region and MICE Vision..... 28
- Implementation of Amended Bharat Net Programme (ABP) in Andhra Pradesh 31
- Andhra Pradesh Named "Best Tourism Promotion State" at GTM Tourism Awards 2026 36
- Amaravati Quantum-Secure Communications Test Bed..... 39
- A.P. Sets Timeline for 36 Irrigation Projects by 2028..... 42
- Bharat Forge to Set Up India's First Private Marine Gas Turbine Facility in Andhra Pradesh ... 46
- Andhra Model of Education: 100% School Enrolment Goal..... 49
- Operation Clean Sweep in Andhra Pradesh..... 54
- AP Duo to Receive Padma Shri Awards 2026: Garimella Balakrishna Prasad and Vempaty Kutumba Sastry..... 56
- A.P. Government Launches MSME Parks Initiative to Boost Rural Employment and Development 58
- AP Government Offers ₹10 Lakh Collateral-Free Loans for DWCRA Women 61

APPSC News Summary

Andhra Pradesh Emerging as a Major Centre for Beach Sand Mineral Exploration

Source : [The Hindu / BusinessLine](#)

Relevance : Location-based mineral resources, Andhra Pradesh economy and geography

Why in News?

Andhra Pradesh is emerging as a leading State in the exploration and development of Beach Sand Minerals along its eastern coastline. The State holds nearly 25% of India's total reserves, making it second only to Tamil Nadu, and is increasingly being positioned as a major mineral-based industrial hub.

Important Key Words

For Prelims:

- Beach Sand Minerals, Ilmenite, Rutile, Monazite, Zircon, Garnet, Sillimanite, Thorium, Rare Earth Elements, Placer Deposits

For Mains:

- Coastal processes, mineral economy, rare earth supply chains, nuclear energy resources, environmental governance

Coastal Location and Formation of Deposits

- The presence of beach sand minerals in

Andhra Pradesh is closely associated with its location along the Bay of Bengal and the sediment transport systems of major rivers.

- The most prominent deposits are located in the northern coastal districts such as Srikakulam and Visakhapatnam, particularly in areas like Gara, Etcherla, Ranasthalam, Bheemunipatnam and Nakkapalli, while coastal belts of West Godavari, Krishna and Konaseema districts also contain significant deposits.
- These minerals are formed through long-term geological processes.
- Rivers such as the Godavari River and the Krishna River transport mineral-rich sediments from the interior plateau towards the coast.
- When these sediments reach the sea, wave action and tidal currents remove lighter particles and concentrate heavier minerals.
- This results in the formation of placer deposits, where economically valuable minerals accumulate along beaches, dunes and coastal plains.

Distribution and Resource Profile in Andhra Pradesh

- Andhra Pradesh has approximately 211

million tonnes of beach sand mineral reserves out of India's total estimated 838 million tonnes.

- The State has the largest reserves of rutile and monazite in India, while it has the second-largest reserves of ilmenite.
- Several deposits are already under development, and ongoing exploration has revealed additional reserves, indicating strong future potential for expansion.

Mineral Composition and Uses

- Beach sand minerals in Andhra Pradesh consist of a diverse group of heavy minerals with significant industrial applications.
- Ilmenite is widely used for the extraction of titanium dioxide, which is essential in paints, plastics and paper industries, and also has applications in aerospace and engineering due to the strength and corrosion resistance of titanium.
- Rutile, being a higher-grade titanium ore, is used in the production of titanium metal, which is critical for aircraft manufacturing, defence equipment and high-performance engineering components.
- Monazite is particularly important as it contains rare earth elements along with thorium. Rare earth elements are used in advanced technologies, while thorium is relevant for nuclear energy production, making this mineral highly regulated.
- Zircon is used extensively in ceramic industries due to its high thermal stability and resistance to corrosion, and also finds application in nuclear reactors.
- Garnet serves as an industrial abrasive and is used in sandblasting and waterjet cutting processes, while sillimanite is used in refractory industries where materials must

withstand very high temperatures, such as furnace linings and industrial kilns.

Role in Energy and Technology Systems

- The importance of beach sand minerals extends into emerging sectors of energy and advanced technology.
- Thorium obtained from monazite is an important resource for India's long-term nuclear energy programme, which is based on a three-stage strategy aimed at sustainable energy production.
- Rare earth elements present in these minerals are essential for modern technologies, including electric vehicles, renewable energy systems such as wind turbines, and electronics like semiconductors.
- They also play a critical role in defence technologies, making these minerals integral to technological advancement.

Environmental Concerns

- Beach sand mining occurs in ecologically sensitive coastal regions, where disturbances can lead to coastal erosion and habitat degradation.
- Unregulated extraction may also affect groundwater quality and disrupt livelihoods dependent on fisheries and agriculture.
- Therefore, mining activities are regulated under Coastal Regulation Zone norms and Environmental Impact Assessment processes to ensure sustainability.

Ponna Kaluva Utsavam at Tirupati

Source : The Hindu

Relevance: GS Paper I (Art & Culture) | APPSC
- Andhra Pradesh Temple Traditions, Festivals, Sacred Geography

Important Key Words

For Prelims:

- Ponna Kaluva Utsavam, Chitra Pournami, Utsava Murti, Govindaraja Swamy, Tirupati, Tiruchanur, Vaishnavism, Agama Shastra, Temple Procession

For Mains:

- Sacred geography, Temple networks, Ritual ecology, Seasonal adaptation in religion, Institutional role of TTD

Why in News?

The 'Ponna Kaluva Utsavam' was recently conducted by Tirumala Tirupati Devasthanams at Tirupati for Lord Govindaraja along with Sridevi and Bhudevi on Chitra Pournami, reflecting a classical Vaishnavite seasonal ritual of Andhra Pradesh.

This topic is highly important for aspirants preparing through best APPSC Group 1 coaching, best APPSC Group 2 coaching, and APPSC online coaching, as it relates to governance, economy, and administrative reforms – key areas in the APPSC Group 1 syllabus and APPSC Group 2 syllabus in Telugu PDF.

Temple-Water Channel Link in Ponna Kaluva Utsavam

- The Ponna Kaluva Utsavam is defined by

the ceremonial movement of the utsava murti from the Sri Govindaraja Swamy Temple to the Ponna Kaluva located about five kilometres away from the temple.

- This ritual movement represents the extension of sacred space beyond the temple precinct into the surrounding natural landscape.

Tirupati as a Multi-Temple Vaishnavite Sacred Complex

- The festival must be understood within the broader Vaishnavite network centred around Tirupati.
- This includes Tirumala Venkateswara Temple on the Tirumala hills, Padmavathi Temple Tiruchanur at Tiruchanur, and the Govindaraja Swamy Temple in the town.
- These temples together represent different manifestations of Vishnu and His consorts, forming an integrated pilgrimage system.
- For aspirants enrolled in best APPSC Group 1 coaching online or APPSC Group 2 coaching online, this reform is a classic example of governance transformation, often asked in APPSC Group 1 mains preparation and APPSC Group 2 mains preparation

Utsava Murti Procession as a Core Feature of Dravidian Temple Practice

- The use of processional deities during the festival reflects the Agamic tradition of utsava murti worship, where the deity is periodically taken out of the sanctum. This practice symbolises accessibility of the divine and the interaction between deity and devotees.
- Comparable processional traditions are observed in Simhachalam Temple and

Srikalahasti Temple, indicating that such rituals are a common structural feature of South Indian temple culture.

Integration of Water Rituals with Vaishnavite Worship Practices

- A central element of the festival is the ceremonial bathing of the deity in a water-filled mandapam using aromatic substances.
- Water-based rituals are also seen in temple tank festivals such as Teppotsavam at Tirumala Venkateswara Temple, where floating processions are conducted. The use of water bodies in rituals demonstrates their dual role as both ecological and sacred resources.

Such developments are frequently covered in APPSC test series, APPSC Group 1 test series, and APPSC Group 2 mock tests, making them crucial for APPSC Group 1 preparation strategy 2026.

Chitra Pournami as a Lunar Marker for Regional Temple Festivals

- The timing of the festival on Chitra

Pournami highlights the importance of the lunar calendar in determining temple rituals.

- This full moon day is associated with several religious observances across South India.
- In Andhra Pradesh, it is linked with both Vaishnavite and Shaivite traditions, thereby illustrating how regional festivals are synchronised with broader calendrical systems.

Hill Temples, Riverine Temples and Ritual Linkages

- The linkage between temple and water channel in this festival reflects a broader pattern of sacred geography seen across Andhra Pradesh.
- Hill-based temples like Tirumala Venkateswara Temple and Annavaram Satyanarayana Swamy Temple are often associated with nearby water bodies or ritual sites.

Andhra Pradesh Festivals

Festival	Associated Deity/Theme	Location/Region	Time/Season	Key Features / Prelims Facts
Ponna Kaluva Utsavam	Lord Vishnu (Govindaraja with Sridevi & Bhudevi)	Tirupati	Chitra Pournami (April-May)	Symbolic summer retreat; deities taken in procession to water mandapam; Abhishekam with cooling substances like vetiver; reflects climate-culture linkage
Brahmotsavam	Lord Venkateswara	Tirumala Venkateswara Temple	Annual (Sept-Oct generally)	9-day grand festival; Garuda Vahana most important; showcases



				Utsava Murti procession tradition
Ugadi	Telugu New Year	Entire Andhra Pradesh	Chaitra month (March–April)	Marks beginning of new Samvatsara; Ugadi Pachadi (6 tastes) represents different emotions of life
Sankranti	Harvest festival (Sun's transition into Capricorn)	Coastal Andhra	January	3-day festival: Bhogi, Sankranti, Kanuma; cattle worship; rangoli (Muggulu); linked with agriculture cycle
Tirupati Gangamma Jatara	Goddess Gangamma	Tirupati	May	Folk festival; participants wear disguises (Veshalu); reflects Gramadevata tradition and local belief systems
Kanaka Durga Navaratri	Goddess Durga	Vijayawada (Indrakeeladri hill)	Sept–Oct	9-day Dasara festival; different alankarams of deity each day; major Shakti worship centre
Sri Rama Navami	Lord Rama	Godavari region	March–April	Celebrates birth of Rama; Kalyanotsavam (divine marriage) important ritual
Rottela Panduga	Communal harmony festival	Nellore	Muharram period	Devotees exchange rotis at Bara Shaheed Dargah; example of Hindu–Muslim cultural synthesis
Veera Brahmendra Swamy Festival	Saint worship	Rayalaseema region	Variable	Linked with prophecies (Kalagnanam); reflects Bhakti and saint tradition
Poleramma Jatara	Village deity (Gramadevata) worship	Rural Andhra	Seasonal (often summer)	Associated with protection from diseases; highlights folk traditions and rural religious practices

These topics are important for those using APPSC study material, APPSC Group 1 study material PDF, and APPSC Group 2 study material, especially while practicing APPSC Group 1 previous papers with answers and APPSC Group 2 previous papers with solutions

Naidu's Industrial Push for Andhra Pradesh: Structural Transformation, Strategic Depth and Emerging Risks

Source: [The Hindu](#)

Relevance: GS Paper III (Economy, Infrastructure, Industrialisation) | GS Paper II (Governance) | AP Economy

Important Key Words

- **For Prelims:** Hyperscale Data Centre, Submarine Cable, Anchor Investment, Deemed DISCOM, Open Access, Industrial Corridor
- **For Mains:** Industrial diversification, regional planning, investment-led growth, policy continuity, sustainability

Why in News?

The Government of Andhra Pradesh under N. Chandrababu Naidu is undertaking a major industrial push by attracting large-scale investments in data centres, steel, renewable energy, and manufacturing sectors, aiming to transform the State into a diversified economic hub. **This topic is highly important for aspirants preparing through best APPSC Group 1 coaching, best APPSC Group 2 coaching, and APPSC online coaching, as it relates to governance, economy, and administrative reforms—key areas in the**

APPSC Group 1 syllabus and APPSC Group 2 syllabus in Telugu PDF.

Evolution of Industrial Model

- The current strategy represents a transition from the earlier success of developing Hyderabad as a global IT hub to a distributed industrial model in Andhra Pradesh.
- The Hyderabad model was based on **agglomeration economies**, where industries concentrated in a single urban centre, benefiting from skilled labour, infrastructure, and network effects.
- After bifurcation, Andhra Pradesh lost this economic core and adopted a **multi-node development strategy**, where different regions such as Visakhapatnam, Tirupati, and Rayalaseema are assigned sector-specific industrial roles. This reflects the static concept of **balanced regional development**.

For aspirants enrolled in best APPSC Group 1 coaching online or APPSC Group 2 coaching online, this reform is a classic example of governance transformation, often asked in APPSC Group 1 mains preparation and APPSC Group 2 mains preparation

Digital Core and Infrastructure Advantage

- The central feature of the industrial push is the development of hyperscale data centres, marking a shift from IT services to **digital infrastructure economy**.
- Visakhapatnam's coastal location enables the establishment of **submarine cable landing stations**, which carry more than 95% of global internet traffic and provide low-latency connectivity essential for AI,

fintech, and cloud computing.

- The State is also adopting innovative power mechanisms such as the **Deemed DISCOM model**, allowing industries to procure electricity through open access and captive generation. This reflects broader **power sector reforms and renewable integration**.

Such developments are frequently covered in APPSC test series, APPSC Group 1 test series, and APPSC Group 2 mock tests, making them crucial for APPSC Group 1 preparation strategy 2026.

Industrial Geography and Regional Planning

- The industrial strategy follows the principle of **location-based industrialisation**.
- Coastal Andhra is suited for port-based industries such as steel and data centres due to maritime connectivity.
- The Tirupati region, including Sri City, benefits from proximity to major industrial corridors, enabling manufacturing growth.
- Rayalaseema is being positioned for emerging sectors such as defence, drones, and space industries, reflecting the concept of **specialised economic zones and industrial corridors**.
- This spatial diversification reduces regional imbalance and aligns with the objectives of economic planning.

Investment Model and Ecosystem Building

- The State is using **anchor investments** to trigger industrial ecosystems. Large projects such as hyperscale data centres act as catalysts for attracting ancillary industries, generating **forward and backward linkages**.

- The model relies heavily on **foreign direct investment (FDI)** and public-private partnerships, indicating a shift from state-led industrialisation to **market-driven growth supported by policy facilitation**.
- Such investments contribute to capital formation, technology transfer, and integration into global value chains.

Structural Challenges

- The industrial push faces several structural constraints.
- Resource-intensive projects such as data centres require large quantities of electricity and water, raising concerns about sustainability and environmental impact.
- The capital-intensive nature of these industries may result in limited employment generation, highlighting the issue of **jobless growth**.
- A critical challenge is **policy discontinuity**, where changes in political leadership lead to reversal or delay of projects, affecting investor confidence and long-term planning.

Way Forward

- The State must ensure that industrial expansion is aligned with environmental sustainability through efficient resource management, renewable energy integration, and ecological safeguards.
- There is a need to strengthen skill development initiatives so that local populations can benefit from emerging industries.
- Institutional mechanisms should be developed to ensure policy continuity across political regimes, thereby improving

investor confidence.

- Balanced regional development should be maintained by linking industrial growth with infrastructure and social development.

Conclusion

The industrial push in Andhra Pradesh reflects a strategic shift towards a diversified, infrastructure-driven growth model integrating digital and core sectors. While the approach has significant transformative potential, its success will depend on sustainable resource use, inclusive employment generation, and stability in governance and policy implementation.

Pattadar Passbooks in Andhra Pradesh: Land Titling, Legal Validity and Governance Shift

Source: [The Hindu](#)

Relevance: GS Paper II (Governance, Land Reforms) | GS Paper III (Agriculture) | APPSC (Land Administration)

Important Key Words

- **For Prelims:** Pattadar Passbook, Land Titling, Presumptive Title, Conclusive Title, State Emblem of India Act 2005, Record of Rights (RoR)
- **For Mains:** Land governance, property rights, administrative reforms, digitisation, agrarian security

Why in News?

The Andhra Pradesh government has distributed revised pattadar passbooks to farmers in Nandyal district, replacing earlier documents and

emphasising accuracy, legal validity, and neutrality by incorporating the State Emblem.

This topic is highly important for aspirants preparing through best APPSC Group 1 coaching, best APPSC Group 2 coaching, and APPSC online coaching, as it relates to governance, economy, and administrative reforms – key areas in the APPSC Group 1 syllabus and APPSC Group 2 syllabus in Telugu PDF.

Pattadar Passbook: Legal Nature and Record System

- A pattadar passbook is an official land ownership document issued to farmers, recording details such as ownership, extent of land, survey number, and type of land.
- It forms part of the **Record of Rights (RoR)** system maintained by the State, which serves as primary evidence for land transactions, agricultural loans, and dispute resolution.
- In Andhra Pradesh, the passbook acts as a **facilitating document rather than conclusive proof of ownership**, reflecting India's broader presumptive land record system.

Such developments are frequently covered in APPSC test series, APPSC Group 1 test series, and APPSC Group 2 mock tests, making them crucial for APPSC Group 1 preparation strategy 2026.

Land Titling Systems in India: Conceptual Shift

- India traditionally follows a **presumptive land titling system**, where ownership is inferred from possession and historical records, but the State does not guarantee title.



- In contrast, a **conclusive titling system** provides legally guaranteed ownership, where the State assumes responsibility for correctness of land records.

This distinction is important for prelims:

- Presumptive system → disputes possible, courts decide ownership
- Conclusive system → state-certified ownership, minimal disputes

Andhra Pradesh Land Titling Act and Policy Reversal

- The State earlier attempted to introduce conclusive titling through a Land Titling Act aimed at eliminating disputes and modernising land governance.
- However, concerns emerged regarding errors in surveys, concentration of authority, and difficulty in correcting mistakes.
- The present government under N. Chandrababu Naidu repealed the Act and shifted focus to correcting records rather than guaranteeing titles.
- This reflects a broader governance debate between **reform ambition** and **administrative capacity**.

Role of State Emblem and Legal Authenticity

- The issuance of passbooks bearing the State Emblem strengthens the legal credibility of documents.
- The use of the emblem is regulated under the State Emblem of India (Prohibition of Improper Use) Act, 2005, which ensures that official symbols are used only for authorised purposes.

The shift away from political imagery towards the State Emblem reinforces:

- Institutional neutrality

- Legal sanctity of documents
- Public trust in governance

Governance Issues in Land Administration

- Land administration remains a sensitive issue due to multiple structural challenges.
- Errors in land surveys and digitisation processes can lead to disputes and litigation.
- Frequent policy changes create uncertainty and affect farmer confidence.
- Land remains a key economic asset in rural India, linking agriculture, credit access, and social security.
- Thus, land governance is not only an administrative issue but also a **political and socio-economic concern**.

Way Forward

There is a need to strengthen accuracy in land surveys using modern technologies such as GIS and satellite mapping.

- Institutional mechanisms must be developed to ensure transparent grievance redressal for correcting land records. A gradual transition toward conclusive titling can be considered only after ensuring data accuracy and administrative preparedness.
- Digitisation should be complemented with legal safeguards and public awareness to build trust among farmers.

Conclusion

The reissue of pattadar passbooks in Andhra Pradesh highlights the importance of reliable land records in ensuring agricultural security and governance credibility. While reforms in land titling remain necessary, they must be implemented cautiously, balancing efficiency with accuracy and protecting the rights of farmers.



Japan Skill Mobility Partnership: Andhra Pradesh Youth in Japan's Automobile Manufacturing Sector

Source: [The Hindu](#)

Relevance: GS Paper III (Skill Development, Employment, Manufacturing) | GS Paper II (India-Japan Relations) | APPSC (Human Resource Development)

Important Key Words

- **For Prelims:** APSSDC, Specified Skilled Worker (SSW), Engineer/Specialist in Humanities/International Services (EHI), Kaizen, ITI, Aichi Prefecture
- **For Mains:** International labour mobility, skill development, India-Japan partnership, demographic transition, manufacturing workforce

Why in News?

The Andhra Pradesh State Skill Development Corporation signed a Letter of Intent with Japan's Fourth Valley Concierge Corporation (FVCC) to facilitate overseas employment opportunities for Andhra Pradesh youth, particularly in Japan's automobile manufacturing sector under the Specified Skilled Worker (SSW) and EHI visa categories.

This topic is highly important for aspirants preparing through best APPSC Group 1 coaching, best APPSC Group 2 coaching, and APPSC online coaching, as it relates to governance, economy, and administrative reforms – key areas in the APPSC Group 1 syllabus and APPSC Group 2 syllabus in Telugu PDF.

FVCC Partnership Framework

The partnership has been launched under APSSDC's Skill International Programme to create structured overseas employment pathways for technically trained youth.

Under the arrangement:

- APSSDC will identify, mobilise, and train candidates through its institutional network.
- FVCC will facilitate recruitment, placement, documentation, onboarding, and employer coordination in Japan.
- Dedicated nodal officers will coordinate implementation and monitoring.

The initiative particularly targets ITI and polytechnic students trained in technical trades relevant to industrial manufacturing.

Japan's Labour Crisis and Skilled Worker Demand

Japan faces severe labour shortages due to:

- Ageing population
- Declining birth rate
- Shrinking working-age population

This demographic transition has created demand for foreign skilled workers in manufacturing, healthcare, construction, and industrial services.

Japan's automobile manufacturing ecosystem is among the sectors facing acute shortage of shop-floor technical workers.

This explains the increasing recruitment of foreign workers under regulated skill migration frameworks.

Such developments are frequently covered in APPSC test series, APPSC Group 1 test series, and APPSC Group 2 mock tests, making them crucial for APPSC Group 1 preparation strategy 2026.

Land Titling Systems in India: Conceptual Shift

India traditionally follows a **presumptive land titling system**, where ownership is

Specified Skilled Worker (SSW) Visa System

Japan introduced the Specified Skilled Worker (SSW) system in 2019 to address labour shortages in selected sectors.

- SSW permits foreign workers in sectors facing manpower shortage.
- Manufacturing and industrial machinery sectors are included.
- Workers must pass skill proficiency and Japanese language tests.
- Unlike earlier trainee programmes, SSW allows limited job mobility within the same sector.

The programme is distinct from Japan's older Technical Intern Training Programme (TITP), which was more restrictive in labour mobility.

Automobile Sector Linkages and Industrial Geography

The collaboration mainly targets Japan's automobile and auto-component manufacturing sector.

Key geographical linkage:

- Aichi Prefecture is Japan's major automobile manufacturing region.
- Toyota Motor Corporation has its headquarters in Toyota City within Aichi Prefecture.

The targeted jobs are technical shop-floor roles such as:

- CNC machine operators
- Welders
- Fitters
- Fabrication workers
- Assembly technicians
- Maintenance personnel

This reflects a **sector-specific labour mobility model**, unlike Gulf migration which is largely construction-oriented.

Skill Ecosystem and Technical Training in Andhra Pradesh

Andhra Pradesh possesses a growing network of:

- Industrial Training Institutes (ITIs)
- Polytechnics
- Skill development centres

The programme aligns ITI trades with Japanese industrial requirements.

Training modules include:

- Japanese language instruction
- Factory safety communication
- Precision manufacturing standards
- Kaizen practices

Kaizen is an important Japanese industrial concept emphasising continuous efficiency improvement and workplace discipline.

India-Japan Strategic and Economic Linkages

India and Japan maintain a Special Strategic and Global Partnership involving:

- Industrial cooperation
- Infrastructure development
- Skill partnerships
- Supply chain diversification

Japan has previously supported India through:

- Delhi-Mumbai Industrial Corridor (DMIC)
- Mumbai-Ahmedabad High-Speed Rail Project
- Japanese Industrial Townships

The APSSDC initiative reflects growing cooperation in human resource mobility and manufacturing integration.

Way Forward

- Technical education in Andhra Pradesh

should increasingly align with international industrial standards.

- Language training and certification systems must be strengthened for overseas employability.
- India can expand bilateral skill mobility partnerships with ageing economies facing workforce shortages.
- Robust safeguards are needed to ensure fair recruitment practices and worker protection abroad.

Conclusion

The APSSDC-Japan partnership represents an important shift from low-skilled overseas migration toward structured global workforce integration in advanced manufacturing sectors. By linking technical education with international labour demand, Andhra Pradesh is positioning itself as a skilled manpower hub in the evolving global industrial economy.

Andhra Pradesh's Emerging Data Centre and Advanced Manufacturing Ecosystem

Source: [The Hindu](#)

Relevance: GS Paper III – Infrastructure, Digital Economy, Industrial Corridors, Manufacturing Ecosystems, Energy Infrastructure
APPSC – Industrial Development of Andhra Pradesh, Sri City, Data Infrastructure, Cluster-Based Manufacturing

Important Key Words

For Prelims:

- Sri City, Data Centres, Hyperscale

Infrastructure, Chillers, Carrier Global, Cluster-Based Development, Vertical Integration, Horizontal Integration, Naipunyam, Submarine Cables, Renewable Energy Clusters

For Mains:

- Digital infrastructure, industrial ecosystems, AI economy, manufacturing clusters, logistics-led development, export-oriented industrialisation

Why in News?

Nara Lokesh laid the foundation stone for the manufacturing unit of [Carrier Global](#) at Sri City in Tirupati district and stated that Andhra Pradesh is emerging as a “one-stop hub” for data centre infrastructure and Artificial Intelligence ecosystems.

Andhra Pradesh's Data Centre Ecosystem Vision

Andhra Pradesh is attempting to move beyond conventional IT infrastructure by developing a complete ecosystem supporting hyperscale data centres and AI infrastructure.

The State's strategy focuses on integrating:

- Data centres
- Cooling systems
- Power infrastructure
- Semiconductor-linked electronics
- Cloud infrastructure
- AI processing facilities
- Submarine cable connectivity

Unlike traditional IT parks, modern hyperscale data centres require continuous high-capacity electricity supply, advanced thermal management systems, low-latency communication networks, and precision engineering support industries.

Visakhapatnam is being developed as a major AI

and data gateway due to:

- Coastal location
- Availability of land
- Proximity to submarine cable landing stations
- Access to renewable energy corridors
- Strong port connectivity

The State is targeting multi-gigawatt data infrastructure capacity, positioning Andhra Pradesh among India's major digital infrastructure destinations.

Sri City as a Manufacturing and Logistics Hub

Sri City is one of India's major integrated business cities located near the Andhra Pradesh-Tamil Nadu border along the Chennai-Bengaluru Industrial Corridor.

Key geographical and infrastructural advantages include:

- Proximity to Chennai port ecosystem
- Access to Krishnapatnam Port and Ennore Port
- Location along National Highway and industrial freight corridors
- Connectivity to Chennai International Airport

The region has emerged as a manufacturing hub for:

- Electronics
- Automobile components
- HVAC systems
- Industrial machinery
- Consumer appliances

Cooling Infrastructure and Data Centre Technology

One of the most critical components of modern data centres is thermal management.

Large-scale AI servers and cloud systems generate

enormous heat due to continuous high-performance computing operations. This makes advanced cooling infrastructure essential.

The upcoming Carrier facility will manufacture:

- High-efficiency chillers
- Industrial cooling systems
- Precision cooling equipment
- HVAC systems for hyperscale computing facilities

What are Chillers?

Chillers are refrigeration-based cooling systems used to remove heat from industrial equipment and data centre infrastructure.

They are essential because:

- AI servers operate continuously
- Overheating can damage processors
- Temperature stability is necessary for uninterrupted computing

Modern hyperscale data centres increasingly rely on:

- Energy-efficient liquid cooling
- Air-cooled chillers
- Smart thermal systems integrated with AI monitoring

Cluster-Based Industrial Development Model

The Andhra Pradesh government is promoting an industrial model based on interconnected production ecosystems rather than isolated factories.

The State has identified multiple industrial clusters, including:

- Data centre hub
- Renewable energy cluster
- Space city
- Defence manufacturing zone
- AC manufacturing cluster
- Glass manufacturing cluster

Aspect	Vertical Integration	Horizontal Integration
Meaning	Vertical integration means linking all stages of production within one organised industrial ecosystem.	Horizontal integration means strengthening supporting sectors that help industries function efficiently.
Main Focus	It focuses on the complete production chain from input to final product.	It focuses on common support systems needed by many industries.
Key Components	Raw materials, components, manufacturing, testing, logistics and final assembly.	Skill development, certification systems, industrial testing, logistics services and human resource networks.

Naipunyam and AI-Driven Workforce Development

The State also launched the **Naipunyam** initiative, an AI-powered conversational skill assessment platform.

Its objectives include:

- Evaluating employability skills

- Industry-oriented testing
- Digital certification
- Workforce mapping

Industrial Corridors and Regional Development

The industrial expansion is closely connected with major national infrastructure corridors such as:

- Chennai-Bengaluru Industrial Corridor (CBIC)
- Visakhapatnam-Chennai Industrial Corridor (VCIC)

These corridors aim to integrate:

- Manufacturing zones
- Freight systems
- Urban infrastructure
- Export logistics

The broader strategy reflects a shift from agriculture-dominated regional economies toward technology-driven industrialisation.

Way Forward

Andhra Pradesh must ensure balanced industrial growth by combining investment promotion with environmental sustainability.

The State should focus on:

- Renewable energy integration
- Water-efficient industrial systems
- Skilled workforce development
- Stable policy continuity
- Cybersecurity infrastructure
- Green manufacturing standards

Conclusion

The development of data centres, advanced cooling infrastructure, manufacturing clusters, and AI-linked workforce systems indicates Andhra Pradesh's transition toward a high-technology

industrial economy. By integrating ports, industrial corridors, digital infrastructure, and manufacturing ecosystems, the State is positioning itself as a major centre for next-generation infrastructure and export-oriented industrial growth.

'Mee Intiki – Mee Doctor': Doorstep Healthcare for Poor Families in Andhra Pradesh

Source: [The Hindu](#)

Relevance: APPSC: Group 1 & 2 Prelims, Group 1 Mains Paper III – Governance and Social Justice;

Important Key Words

For Prelims:

- Mee Intiki – Mee Doctor, World Red Cross Day, World Thalassemia Day, Indian Red Cross Society, Jean Henry Dunant, Nobel Peace Prize 1901, Primary Healthcare, Doorstep Healthcare, Thalassemia Screening, Lok Bhavan

For Mains:

- Health Equity, Last-mile Delivery, Primary Healthcare Access, Vulnerable Sections, Public Health Governance, Preventive Healthcare, Humanitarian Service, Rural Healthcare Delivery

Why in News?

Andhra Pradesh Governor S. Abdul Nazeer launched the 'Mee Intiki – Mee Doctor' project at Lok Bhavan, Vijayawada, during the programme organised on World Red Cross Day and World Thalassemia Day.

The project aims to provide **primary healthcare**

services at the doorstep to poor families living in inaccessible areas.



Governor S. Abdul Nazeer presenting memento to a top performer during the World Red Cross Day held at Lok Bhavan in Vijayawada on Thursday. | Photo Credit: BY ARRANGEMENT

Key Highlights

- The project aims to extend medical aid to **5 lakh poor families**.
- It will cover inaccessible areas in **seven districts**.
- The project will be implemented over a period of **three years**.
- Medical teams will provide healthcare services at the **doorsteps** of beneficiaries.
- Special focus will be given to:
 - **Pregnant women**
 - **Children aged 0–6 years**
 - **Bedridden persons** who cannot visit nearby health centres
- The project was launched on **World Red Cross Day** and **World Thalassemia Day**.
- The event was held at **Lok Bhavan, Vijayawada**.
- Governor S. Abdul Nazeer also presented mementos and awards to top performers and Red Cross award winners.

About 'Mee Intiki – Mee Doctor' Project

'Mee Intiki – Mee Doctor' means "Your Doctor at Your Home."

It is a doorstep healthcare initiative aimed at improving access to **primary healthcare** for poor

08 MAY 2026

WORLD RED CROSS DAY & WORLD THALASSEMIA DAY

1. WORLD RED CROSS DAY

- Observed globally to recognise the humanitarian work of the International Red Cross and Red Crescent Movement.

- Honours volunteers and staff who provide essential services to people in need, especially during emergencies and disasters.

- Commemorates the birth anniversary of Jean Henry Dunant, founder of the International Red Cross and Red Crescent Movement.

- Jean Henry Dunant received the first Nobel Peace Prize in 1901.

2. WORLD THALASSEMIA DAY

- Also observed on 08 May.
- Focuses on spreading awareness about thalassemia, a genetic blood disorder.

Key Focus Areas

1

Awareness generation

2

Early screening

3

Timely diagnosis

4

Support for affected families

Why These Days Matter

They promote humanitarian service, health awareness, timely care, and support for vulnerable communities.

and vulnerable families. The project is especially important for people living in remote and inaccessible areas who face difficulty in reaching nearby health centres.

The initiative follows the idea of **last-mile health service delivery**, where healthcare is taken directly to the people instead of expecting vulnerable groups to travel long distances.

World Red Cross Day (08 May 2026)

- World Red Cross Day** is observed globally to recognise the humanitarian work of the **International Red Cross and Red Crescent Movement**.
- It honours the efforts of volunteers and staff who provide essential services to people in need, especially during

emergencies and disasters.

- World Red Cross Day commemorates the birth anniversary of **Jean Henry Dunant**, the founder of the International Red Cross and Red Crescent Movement. He received the first **Nobel Peace Prize in 1901** for his contribution to the Red Cross movement.

World Thalassemia Day (08 May 2026)

World Thalassemia Day is also observed on the same day. It focuses on spreading awareness about **thalassemia**, a genetic blood disorder.

The Governor urged the need to focus on:

- Awareness generation
- Early screening
- Timely diagnosis
- Support for affected families



Red Cross Awards and Event Details

Governor S. Abdul Nazeer, who is also the honourable president of the Indian Red Cross Society, Andhra Pradesh State Branch, congratulated the District Collectors and presidents of Red Cross district branches for their service.

Districts recognised with Red Cross Awards

- SPSR Nellore
- West Godavari
- Bapatla
- Krishna
- Kakinada

The awards were given in recognition of their contributions to the Red Cross movement in Andhra Pradesh during the last two years.

Officials and Participants

The programme was attended by:

- Y.D. Rama Rao – Chairman, Indian Red Cross Society, Andhra Pradesh State Branch
- Ashwini Kumar Parida – General Secretary and CEO
- G. Anantha Ramu – Special Chief Secretary to Governor
- Chairpersons of district branches
- State branch managing committee members
- Other dignitaries

Significance

1. Health Equity

- The project helps poor families in inaccessible areas receive basic healthcare services at home. It reduces the gap between rural and urban healthcare access.

2. Support to Vulnerable Groups

- Pregnant women, children aged 0–6 years, and bedridden persons need regular health support. Doorstep services directly benefit these groups.

3. Strengthening Primary Healthcare

- The project promotes early diagnosis, basic

treatment and preventive healthcare. This can reduce the burden on hospitals.

4. Maternal and Child Health

- Focus on pregnant women and young children can improve maternal care, child health, nutrition monitoring and early disease detection.

5. Humanitarian Governance

- The initiative reflects the role of humanitarian institutions like the Indian Red Cross Society in supporting public welfare.

6. Disaster and Emergency Preparedness

- The Red Cross movement is important during emergencies and disasters. Such health outreach projects strengthen local humanitarian capacity.

7. Awareness on Genetic Disorders

- The link with World Thalassemia Day helps promote early screening and public awareness about inherited blood disorders.

Challenges

- Shortage of doctors and trained medical staff in remote areas
- Difficulty in regularly reaching inaccessible habitations
- Need for medicines, diagnostic tools and transport facilities
- Ensuring follow-up care for serious patients
- Maintaining proper health records of beneficiaries
- Coordination between Red Cross branches, health departments and local bodies
- Creating awareness among poor families about available services
- Ensuring long-term funding and monitoring over the three-year period

Government Initiatives / Policy Support

- **Ayushman Bharat - Health and Wellness Centres** for strengthening primary healthcare
- **National Health Mission** for rural and urban health services
- **Janani Suraksha Yojana** for maternal healthcare support
- **Rashtriya Bal Swasthya Karyakram** for child health screening
- **POSHAN Abhiyaan** for nutrition support to women and children
- State-level health outreach and mobile medical services
- Role of the **Indian Red Cross Society** in humanitarian support and health-related outreach

Way Forward

- Ensure regular medical visits to remote and inaccessible areas
- Use mobile health units for doorstep healthcare delivery
- Maintain digital health records of all beneficiaries
- Strengthen referral links with nearby PHCs and hospitals
- Train local volunteers for basic health awareness and support
- Conduct regular screening for thalassemia, anaemia and maternal health issues
- Provide special care for pregnant women, young children and bedridden persons
- Monitor the project through district-level review mechanisms

Conclusion

The '**Mee Intiki - Mee Doctor**' project is an important step towards **doorstep healthcare**,

health equity and **last-mile service delivery**. By targeting **5 lakh poor families** in inaccessible areas across **seven districts**, the initiative can improve access to primary healthcare for vulnerable groups.

AP Plans Cash Incentives for Third and Fourth Child

Source: Deccan Chronicle

Relevance -

APPSC Group 1: Paper II - Polity and Governance - Government policies and interventions, welfare schemes, women and child development, public health and population-related issues.

Important Key Words

For Prelims:

- Fertility Rate, Total Fertility Rate, Working-age Population, Demographic Dividend, Anganwadi Centres, NTR Baby Kit, Thalli Ki Vandanam, Gram Sabha, IVF Treatment, Public-Private Partnership, Millets, Family Welfare Department.

For Mains:

- Declining Fertility Rate, Ageing Population, Demographic Transition, Human Capital, Women's Health, Reproductive Rights, Maternal Nutrition, Child Welfare, Economic Productivity, Population Policy, Social Security, Responsible Parenthood.

Why in News?

The Andhra Pradesh government is planning to introduce **cash incentives and nutritional support** for families having a **third and fourth child**.



Andhra Pradesh Proposal for 3rd & 4th Child Incentives

Population Support Proposal | May 2026



Why in News?

- The Andhra Pradesh government is planning to introduce cash incentives and nutritional support for families having a third and fourth child.
- The proposal was discussed during the Collectors' Conference held in Amaravati on May 7 and 8, 2026.
- It will be taken up for final approval after a three-month public consultation and awareness programme.



Key Highlights of the Proposal

- Aims to address Andhra Pradesh's declining fertility rate.
- Mothers giving birth to a third or fourth child may receive a one-time cash incentive.
- Nutritional support through millets is also proposed.
- Monthly Gram Sabhas will be conducted during May, June and July 2026 to collect public feedback.
- After public consultation, the proposal will be placed before the Council of Ministers for final approval.
- If approved, the scheme is expected to begin from **August 15, 2026**.

THIS IS A
PROPOSAL BY THE
ANDHRA PRADESH
GOVERNMENT



Cash Incentives for Third and Fourth Child

Child Birth	Proposed Cash Incentive
Third child	₹30,000
Fourth child	₹40,000



- The amount will be directly credited to the mother's bank account.
- Along with the cash incentive, an **NTR Baby Kit** will also be given.



Nutritional Support Through Millets

Child Birth	Monthly Millet Support
Third child	3 kg of millets per month
Fourth child	6 kg of millets per month



- This support aims to improve nutrition among mothers and children and promote food security.



Public Consultation and Gram Sabhas



- Monthly Gram Sabhas will collect public feedback on the proposed incentive structure.
- After consolidating feedback, the proposal will be placed before the Council of Ministers.



Expected Implementation

- If approved, the scheme is expected to be implemented from **August 15, 2026**.
- Officials have been directed to conduct awareness campaigns among eligible couples.
- Health and other department staff will undertake field visits till August 2026 to counsel families on increasing birth rates.



Welfare Coverage for Children

Children born as the third or fourth child under the proposed scheme will be:

- Enrolled in Anganwadi centres
- Covered under welfare schemes
- Included under the **"Thalli Ki Vandanam"** programme



The proposal includes child welfare and early childhood care in addition to cash support.



Reason Behind the Proposal

- The main reason is the declining fertility rate in Andhra Pradesh.
- A senior official from the Family Welfare Department stated that fertility rates are declining not only in Andhra Pradesh but also in several other states.
- The government believes that early intervention is necessary to avoid long-term demographic and economic challenges.



Fertility Rate Concerns in Andhra Pradesh

Current fertility rate:
around
1.5
children per couple



Projected by 2040:

1.2



Couples opting for
a single child:



nearly
48.7%

Couples facing
childlessness issues:



around
11.5 lakh



A fertility rate below replacement level may create long-term demographic imbalance.



All dates mentioned are for the year 2026.

The proposal was discussed during the **Collectors' Conference held in Amaravati on May 7 and 8, 2026.**

The proposal will be taken up for final approval after a **three-month public consultation and awareness programme.**

Key Highlights of the Proposal

- The proposal aims to address Andhra Pradesh's **declining fertility rate.**
- Under the proposal, mothers giving birth to a third or fourth child may receive a one-time cash incentive.
- Nutritional support through **millets** is also proposed.
- Monthly **Gram Sabhas** will be conducted during May, June and July 2026 to collect public feedback.
- After public consultation, the proposal will be placed before the **Council of Ministers** for final approval.
- If approved, the scheme is expected to begin from **August 15, 2026.**

Cash Incentives for Third and Fourth Child

Under the proposal, mothers will receive financial support at the time of childbirth.

Child Birth	Proposed Incentive	Cash
Third child	₹30,000	
Fourth child	₹40,000	

The amount will be directly credited to the **mother's bank account.**

Along with the cash incentive, an **NTR Baby Kit** will also be given.

Nutritional Support Through Millets

The proposal also includes monthly nutritional support.

Child Birth	Monthly Millet Support
Third child	3 kg of millets per month
Fourth child	6 kg of millets per month

This support aims to improve nutrition among mothers and children.

Millets are also important because they are nutritious and suitable for promoting food security.

Public Consultation and Gram Sabhas

Monthly **Gram Sabhas** will be conducted during:

- May 2026
- June 2026
- July 2026

The purpose is to collect public feedback on the proposed incentive structure.

After consolidating the feedback, the proposal will be placed before the **Council of Ministers.**

Expected Implementation

- If approved, the scheme is expected to be implemented from **August 15, 2026.**
- Officials have been directed to conduct awareness campaigns among eligible couples.
- Health and other department staff will undertake field visits till August 2026 to counsel families on increasing birth rates.

Welfare Coverage for Children

Children born as the third or fourth child under the proposed scheme will be:

- Enrolled in **Anganwadi centres**
- Covered under welfare schemes
- Included under the **"Thalli Ki Vandanam"** programme

This shows that the proposal is not limited to cash

support. It also includes child welfare and early childhood care.

Reason Behind the Proposal

- The main reason behind the proposal is the declining fertility rate in Andhra Pradesh.
- A senior official from the Family Welfare Department stated that fertility rates are declining not only in Andhra Pradesh but also in several other states.
- The government believes that early intervention is necessary to avoid long-term demographic and economic challenges.

Fertility Rate Concerns in Andhra Pradesh

According to official data mentioned in the article:

- Andhra Pradesh's fertility rate has dropped to around **1.5 children per couple**.
- It is projected to decline further to **1.2 by 2040**.
- Nearly **48.7% of couples** in the state are opting for a single child.
- Around **11.5 lakh couples** are facing issues related to childlessness.

A fertility rate below replacement level may create long-term demographic imbalance.

Working-age Population Challenge

The state is also concerned about a fall in the working-age population.

According to the article:

- The working-age population is expected to fall from **62.9% to 57%**.

This may affect:

- Labour availability
- Economic productivity
- Tax base
- Social security burden

- Care of the elderly population

IVF Support for Childless Couples

The government is also exploring **public-private partnership models** to provide IVF treatment to couples facing childlessness.

This may help couples who want children but are unable to have them due to medical reasons.

Public Concerns

Some sections of the public have expressed concerns over the proposal.

- For example, G. Gangabhavani from Nandalur in Kadapa district said that rising education costs and financial pressures make it difficult even to raise one child.

This shows that cash incentives alone may not be enough unless families feel secure about:

- Education costs
- Healthcare expenses
- Employment opportunities
- Cost of living
- Childcare support

Other Government Directions

The Chief Minister has also directed officials to:

- Scale down family planning operations
- Reduce the number of caesarean deliveries in private hospitals
- Curb teenage pregnancies
- Intensify awareness campaigns at the grassroots level

These directions show that the government is trying to address both fertility concerns and reproductive health issues.

Significance

1. Addresses Declining Fertility Rate

- The proposal aims to respond to Andhra Pradesh's falling fertility rate and prevent

future ageing-related challenges.

2. Maintains Demographic Balance

- A balanced population structure is important for social stability and economic growth.

3. Supports Mothers Directly

- Cash incentives will be credited to the mother's bank account, strengthening direct benefit delivery.

4. Promotes Nutrition

- Monthly millet support can improve maternal and child nutrition.

5. Strengthens Anganwadi Linkage

- Enrolment in Anganwadi centres can support nutrition monitoring, immunisation, pre-school education and early childhood care.

6. Supports Childless Couples

- Proposed IVF support through PPP models may help couples facing infertility issues.

7. Supports Future Economy

- A stable working-age population is important for labour supply, productivity and long-term economic planning.

Challenges

1. Rising Cost of Raising Children

- Education, healthcare and living costs may discourage families from having more children.

2. Women's Health Concerns

- The policy must protect maternal health, safe childbirth and reproductive rights.

3. Reproductive Choice

- Couples should not feel pressured. The policy should promote informed choice.

4. Implementation Issues

- Cash transfers, millet distribution and welfare coverage require strong monitoring.

5. Unequal Impact

- Poor families may respond more to incentives, so child welfare safeguards are necessary.

6. Public Acceptance

- Changing family preferences and financial pressures may create public hesitation.

7. Teenage Pregnancies

- Promotion of birth rates must be accompanied by efforts to prevent teenage pregnancies.

8. Caesarean Deliveries

- Reduction of C-sections should be based on medical need, not administrative targets.

Way Forward

1. Conduct Public Consultation

- Gram Sabhas should collect genuine feedback from families, women and health workers.

2. Protect Women's Health

- The policy must ensure safe pregnancy, institutional delivery and post-natal care.

3. Link Incentives with Health Services

- Benefits should be linked with check-ups, immunisation and child nutrition.

4. Strengthen Anganwadi Centres

- Anganwadi centres should be improved for nutrition, monitoring and early childhood care.

5. Reduce Family Burden

- The state should support education, healthcare and childcare costs.

6. Promote Responsible Parenthood

- Awareness should focus on maternal health, child welfare and informed family decisions.

7. Regulate IVF Support

- IVF support through PPP models should be

affordable, transparent and medically regulated.

8. Ensure Monitoring

- Strong monitoring is needed to prevent leakages and ensure benefits reach eligible mothers and children.

Conclusion

Andhra Pradesh's proposal reflects a shift from **population control** to **demographic balance**.

It aims to address declining fertility, future workforce concerns and economic productivity.

However, its success will depend on protecting women's health, supporting child nutrition, reducing family expenses and respecting reproductive choice.

A balanced population policy should promote **family welfare, women's dignity and long-term demographic stability**.

Andhra Pradesh Deep-Tech Skilling Initiative: Building a Future-Ready Workforce

Source: [DD News](#)

Relevance:

- APPSC: Group 1 Mains paper IV & Group 2 Mains paper II - Economy and Development; Science & Technology; Education and Skill Development

Important Key Words

For Prelims:

- IBM Skills Build, APSICHE, APSSDC, Amaravati Quantum Valley, NIELIT, National Technology Day, NPTEL, Quantum Computing, Artificial

Intelligence, Cybersecurity

For Mains:

- Deep-Tech Skilling, Future-ready Workforce, Human Capital, Digital Economy, Innovation Ecosystem, Industry-linked Training, Quantum Valley Vision, Technology-led Development

Why in News?

Andhra Pradesh Chief Minister **N. Chandrababu Naidu** announced a statewide **deep-tech skilling initiative** in collaboration with **IBM SkillsBuild, APSICHE, APSSDC and Amaravati Quantum Valley**. The initiative aims to train **2 lakh learners in 2026-27** and scale up to **10 lakh learners over five years** through digital learning, industry-linked training and globally recognised credentials.

Major Features of the Initiative

- The initiative will cover major emerging technology areas: **Quantum Technologies, Artificial Intelligence, Data Analytics, Cybersecurity, Entrepreneurship**
- It will use:
 - Digital learning platforms
 - Industry-linked training
 - Globally recognised credentials
 - Advanced technology programmes
- Target:
 - **2 lakh learners in 2026-27**
 - **10 lakh learners over five years**
- Key institutions involved:
 - **IBM SkillsBuild**
 - **Andhra Pradesh State Council for Higher Education**
 - **Andhra Pradesh State Skill Development Corporation**
 - **Amaravati Quantum Valley**

India Celebrates National Technology Day

PM Narendra Modi Greets the Nation

MAY 11

India celebrates National Technology Day every year on May 11.



The day was declared in 1999 by former PM **Atal Bihari Vajpayee**.



It commemorates the successful **Pokhran-II nuclear tests** (Operation Shakti) conducted on May 11 & 13, 1998.



The day honors the contributions of **scientists, researchers and innovators** driving India's technological progress.



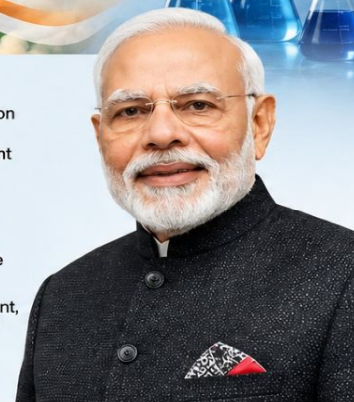
Greetings on National Technology Day.

We recall with pride the hard work and dedication of our scientists, which led to the successful tests in Pokhran in 1998. That landmark moment reflected India's scientific excellence and unwavering commitment.

Technology has become a key pillar in building a self-reliant India. It is accelerating innovation, expanding opportunities and contributing to the nation's growth across sectors.

Our continued focus remains on empowering talent, encouraging research and creating solutions that serve both national progress and the aspirations of our people.

— Narendra Modi, Prime Minister



SIGNIFICANCE



Promotes innovation and scientific temper in the country.



Encourages research, development and technological self-reliance.



Recognizes the contributions of India's scientific community.



Inspires youth to pursue careers in science and technology.



Strengthens India's position as a global technology leader.



National Technology Day — Saluting India's Science, Inspiring a Self-Reliant Future.

National Institute of Electronics & Information Technology (NIELIT) Innovation and Skilling Centre

- The proposed **NIELIT Innovation & Skilling Centre** at **Acharya Nagarjuna University, Guntur**, will focus on:
 - Quantum Computing
 - Artificial Intelligence
 - Quantum Communication
 - Semiconductor technologies
- The centre is planned to begin operations from the current academic year.
- It aims to support:
 - Students
 - Researchers
 - Innovators
- It will provide:
 - World-class infrastructure
 - Advanced laboratories

- Industry-driven learning opportunities
- Officially, NIELIT and the Government of Andhra Pradesh signed an MoU to establish India's first dedicated **Quantum and Artificial Intelligence University campus in Amaravati**, with focus areas such as quantum computing, AI, quantum communication, cybersecurity, quantum hardware and AI-Quantum convergence research.

National Technology Day

- The announcement was made on **National Technology Day**.
- The day commemorates India's scientific achievements, especially the successful **Pokhran tests of 1998**.
- The Chief Minister stated that India's progress depends on investment in:

- Knowledge
- Research
- Innovation
- Human capital
- Andhra Pradesh also celebrated its students for securing:
 - **4 Gold Medals**
 - **14 Silver Medals** in the prestigious **NPTL national examinations**.

Significance

1. Future-ready Workforce

- The initiative can prepare students for new-age sectors such as **AI, quantum technologies, cybersecurity and semiconductors**.

2. Strengthening Human Capital

- Training lakhs of learners can improve Andhra Pradesh's skilled workforce base and make youth more employable.

3. Innovation-led Growth

- The initiative supports the State's vision of building a strong technology and innovation ecosystem under the **Quantum Valley** model.

4. Industry-Academia Linkage

- Collaboration with IBM SkillsBuild and NIELIT can connect classroom learning with industry needs.

5. Support to Digital Economy

- Skilling in data analytics, cybersecurity and AI can support governance, startups, industry and digital services.

6. Research and Deep-Tech Ecosystem

- Advanced laboratories and innovation centres can help students and researchers work on frontier technologies.

Challenges

- Ensuring quality training for large numbers

of learners

- Bridging the gap between urban and rural students
- Providing access to digital devices and internet connectivity
- Training faculty in emerging technologies
- Aligning courses with industry requirements
- Creating sufficient internships and placement pathways
- Preventing certificate-based learning without practical skills

Government Initiatives / Policy Support

- **APSCHE** and **APSSDC** will support higher education and skill development in the State.
- **Amaravati Quantum Valley** is being developed as a major hub for quantum and deep-tech innovation.
- **NIELIT**, under MeitY, supports education, skilling, training, research and capacity building in electronics and information technology.
- The **National Quantum Mission** was approved with an outlay of **₹6,003.65 crore** for 2023-24 to 2030-31 to build a strong ecosystem in quantum technologies.
- **NPTL** continues to support technology-based learning and national-level certification.

Way Forward

- Provide equal access to students from rural and government institutions.
- Create Telugu and English digital learning modules.
- Train faculty as master trainers in deep-tech areas.

- Link training with internships, projects and industry mentorship.
- Build advanced laboratories in universities and colleges.
- Encourage students to participate in national-level competitions.
- Support startups in AI, cybersecurity, quantum and semiconductor technologies.
- Track outcomes through placements, certifications, projects and innovation outputs.

Conclusion

Andhra Pradesh's deep-tech skilling initiative is an important step towards creating a **future-ready State**. By focusing on **AI, quantum technologies, cybersecurity, data analytics and entrepreneurship**, the State aims to prepare students for emerging technology-driven opportunities.

- If implemented effectively, the initiative can strengthen human capital, promote innovation, support the **Quantum Valley vision**, and contribute to India's larger goal of technology-led development.

Andhra Pradesh-Singapore Cooperation: Digital Trade Corridor, Amaravati Economic Region and MICE Vision

Source: [The Hindu](#)

Relevance:

- APPSC: GROUP I - Paper - IV - ECONOMY AND DEVELOPMENT OF INDIA AND ANDHRA PRADESH & GROUP II - PAPER - II - INDIAN AND AP ECONOMY - Andhra Pradesh

Economy; Infrastructure and Industrial Development

Important Key Words

For Prelims:

- Digital Trade Corridor, Singapore Commodities Intelligence Centre, Visakhapatnam Port, Krishnapatnam Port, Amaravati Economic Region, MICE, SAGE Initiative, FPOs, Blockchain Platform

For Mains:

- Trade Connectivity, Export Promotion, Digital Governance, MSME Exports, Port-led Development, Urban Planning, Ease of Doing Business, Andhra Pradesh-Singapore Cooperation

Why in News?

Andhra Pradesh IT and HRD Minister Nara Lokesh participated in the **Joint Implementation Working Committee meeting** between the Andhra Pradesh and Singapore governments in Singapore.

- He called for a **digital trade corridor** between Andhra Pradesh and Singapore, sought support for the **Amaravati Economic Region**, proposed revival of the **Andhra Pradesh-China chilli trade corridor**, and pitched Andhra Pradesh as a future **MICE destination**.



Andhra Pradesh IT and HRD Minister Nara Lokesh presenting a memento to Singapore Minister of State for Trade, Industry and Education Gan Siow Huang in Singapore on Monday. X/JaITDP | Photo Credit: Special Arrangement



Digital Trade Corridor Proposal

Nara Lokesh met **Gloria Wu**, CEO of the **Singapore Commodities Intelligence Centre (CIC)**, and sought cooperation in trade connectivity across sectors such as **seafood, agriculture, minerals and pharmaceuticals**. The proposal also focused on **MSME exports** and exchange of commodity intelligence.

He requested the launch of a **digital trade corridor** between **Singapore** and either **Visakhapatnam seaport** or **Krishnapatnam seaport** as a pilot project. The idea is to use the **CIC blockchain platform** to promote:

- Paperless trade processes
- Cargo transparency
- Better trade connectivity
- Digital tracking of export movement

This proposal is important because Andhra Pradesh has a long coastline and major ports that can support international trade.

Revival of Andhra Pradesh-China Chilli Trade Corridor

The Minister highlighted that Andhra Pradesh is the **largest aquaculture producer in India** and accounts for **40% to 45% of India's chilli exports**.

He urged the revival of the **Andhra Pradesh-China chilli trade corridor** to create new markets for **Guntur chillies**.

Under the proposed arrangement:

- **Farmer Producer Organisations** would handle procurement.
- **FPOs** would also manage grading and quality standardisation.
- The **CIC** would help connect buyers.
- **CIC** would also assist in export finance.

This can help farmers access global markets and improve the export potential of Andhra Pradesh's agricultural products.

Amaravati Economic Region and Integrated Township

Nara Lokesh said that the proposed **integrated township in Amaravati**, similar to Singapore's **Punggol district**, could become a benchmark for urban development in Andhra Pradesh and India.

- He requested that the project be expedited and sought necessary support from the **World Bank**. He also stated that Andhra Pradesh expects support from Singapore's **Ministry of Trade and Industry** for developing the **Amaravati Economic Region** to global standards.
- The State government has already issued a **Request for Proposal** for the Amaravati integrated township project. With statutory backing for the capital, renewed efforts are being made to develop Amaravati comprehensively.

MICE Destination Vision

Andhra Pradesh wants to develop itself as a global **MICE destination**.

MICE stands for:

- **Meetings**
- **Incentives**
- **Conferences**
- **Exhibitions**

Nara Lokesh visited **Suntec City** in Singapore and met **Anandan Karunakaran**, Director of **DP Urban Architects**. He said that Andhra Pradesh is formulating a new **MICE policy** to become a premier hub for world-class events.

- The State plans to study Singapore's **Suntec City model** and create a business-friendly environment for companies already invested in or planning to enter Andhra Pradesh.



Singapore-AP Governance Cooperation

The Andhra Pradesh and Singapore governments signed an **MoU in November 2025**. The MoU focuses on:

- Amaravati integrated model township
- Amaravati Economic Region
- Digital transformation
- Real-time governance

Nara Lokesh also noted that six Andhra Pradesh Ministers recently attended a week-long training programme under the **Singapore-AP Governance Excellence Initiative**. The learnings from this programme are expected to be used to improve citizen services in the State.

- Officials present included Singapore Minister of State for Trade, Industry and Education **Gan Siow Huang**, MTI senior director **Francis Chong**, Singapore Cooperation Enterprise deputy CEO **Tay Lian Chew**, Indian High Commissioner **Shilpak Ambule**, and senior IAS officers.

Significance

1. Strengthening Trade Connectivity

- A digital trade corridor can improve trade efficiency between Andhra Pradesh and Singapore. It can reduce paperwork, improve cargo transparency and support faster export processes.

2. Boost to MSME Exports

- The proposal can help MSMEs access foreign buyers, export finance and commodity intelligence. This can improve the competitiveness of small businesses.

3. Support to Agriculture and Aquaculture

- Andhra Pradesh's strength in aquaculture and chilli exports can be better utilised through organised trade corridors and FPO-led export systems.

4. Port-led Development

- Connecting Singapore with **Visakhapatnam** or **Krishnapatnam** can strengthen port-led growth and improve Andhra Pradesh's role in global trade.

5. Amaravati as an Economic Hub

- The Amaravati Economic Region and integrated township can support urban development, investment and real-time governance.

6. Growth of MICE Economy

- A strong MICE policy can attract conferences, exhibitions and business events, creating opportunities in tourism, hospitality, transport and services.

Challenges

- Ensuring coordination between Andhra Pradesh and Singapore institutions
- Building digital infrastructure for paperless trade
- Maintaining quality standards for export products
- Strengthening FPO capacity in procurement and grading
- Mobilising investment for Amaravati and MICE infrastructure
- Ensuring timely execution of the integrated township project
- Competing with established MICE hubs in India and abroad
- Providing seamless logistics through ports and trade platforms

Government Initiatives / Policy Support

- **AP-Singapore MoU, 2025** for Amaravati township, AER, digital transformation and real-time governance
- **Joint Implementation Working Committee**

- between Andhra Pradesh and Singapore
- Proposed **digital trade corridor** using CIC blockchain platform
- Proposed revival of **AP-China chilli trade corridor**
- Proposed **MICE policy** for Andhra Pradesh
- SAGE initiative** for governance training and capacity building
- RFP issued for the **Amaravati integrated township project**

Way Forward

- Launch the digital trade corridor as a pilot project through Visakhapatnam or Krishnapatnam port.
- Build a strong export ecosystem for seafood, chillies, minerals, pharmaceuticals and MSMEs.
- Strengthen FPOs for quality standardisation and export readiness.
- Use Singapore's expertise in urban planning for Amaravati's integrated township.
- Develop Amaravati Economic Region with clear investment, infrastructure and governance plans.
- Frame a practical MICE policy based on the Suntec City model.
- Use SAGE training outcomes to improve citizen services and real-time governance.

Conclusion

The Andhra Pradesh-Singapore cooperation reflects a broader vision of **trade connectivity, digital governance, urban development and global investment promotion**. A digital trade corridor can improve exports, while the Amaravati Economic Region and MICE policy can position Andhra Pradesh as a future hub for business, logistics and services.

- If implemented effectively, these initiatives can strengthen Andhra Pradesh's economy, support farmers and MSMEs, improve port-led trade and make Amaravati a globally connected urban and economic centre.

Implementation of Amended Bharat Net Programme (ABP) in Andhra Pradesh

Source: [PIB](#)

Relevance:

APPSC – Group I Mains Paper III - Governance, digital governance, rural development, telecom infrastructure, Andhra Pradesh development

Important Key Words

For Prelims

- Digital Bharat Nidhi (DBN), Universal Service Obligation Fund (USOF), Amended BharatNet Programme (ABP), Department of Telecommunications (DoT), Andhra Pradesh BharatNet Infrastructure Limited (APBIL), BSNL, Andhra Pradesh State FiberNet Limited (APSFL), Gram Panchayat broadband connectivity, Ring topology, State-led model

For Mains

- Rural digital infrastructure, Last-mile connectivity, Digital inclusion, E-Governance delivery, Digital divide, Telemedicine and online education, Knowledge economy, Inclusive digital growth



Why in News?

Digital Bharat Nidhi under the **Department of Telecommunications** signed an agreement for the implementation of the **Amended BharatNet Programme** in Andhra Pradesh.

- The agreement was signed between **DBN, DoT, Government of Andhra Pradesh, APBIL, BSNL and APSFL**. The programme will be implemented in Andhra Pradesh under the **State-led model**.
- The Government of India has approved **₹2,432 crore financial support** for the rollout of the programme in Andhra Pradesh.

About the Agreement

- The agreement aims to strengthen and upgrade rural telecom infrastructure in Andhra Pradesh. It focuses on improving broadband connectivity in Gram Panchayats and providing on-demand connectivity to villages.
- The agreement reflects the joint commitment of the Central Government and the Government of Andhra Pradesh towards **rural digital infrastructure, last-mile connectivity and inclusive digital growth**.

What is the Amended Bharat Net Programme?

- The **Amended Bharat Net Programme (ABP)** was approved by the Union Cabinet on **4 August 2023**.
- Its main objective is to **upgrade, consolidate and expand** the existing Bharat Net network. It aims to provide strong and future-ready broadband connectivity to all Gram Panchayats and villages on a demand

basis.

- Bharat Net is one of India's major rural broadband infrastructure programmes. It seeks to bridge the **digital divide** between rural and urban India.

Key Features of ABP in Andhra Pradesh

1. Implementing Agency

- In Andhra Pradesh, the project will be implemented through **Andhra Pradesh BharatNet Infrastructure Limited (APBIL)**.

2. Financial Support

- The Government of India has approved **₹2,432 crore** for implementation of the Amended BharatNet Programme in Andhra Pradesh.

3. Gram Panchayat Coverage

- The programme will cover a total of **13,426 Gram Panchayats** in Andhra Pradesh.

This includes:

- **1,692 Phase I Gram Panchayats** to be upgraded from linear topology to **ring topology**
- **11,254 Phase II Gram Panchayats**
- **480 newly created Gram Panchayats**

4. On-Demand Village Connectivity

- The programme will provide on-demand connectivity to **3,942 villages**.
- This will help improve last-mile connectivity in rural and remote areas.

5. Rural Home Fibre Connections

- The initiative is expected to support more than **five lakh rural home fibre connections** with financial support from the Government of India.

Meaning of Ring Topology

- **Ring topology** is a network design in which connections are arranged in a circular form.



AMENDED BHARATNET PROGRAMME IN ANDHRA PRADESH



Rural broadband expansion under the State-led model



Why in News?

Digital Bharat Nidhi (DBN), Department of Telecommunications, and the Government of Andhra Pradesh signed an agreement to implement the Amended BharatNet Programme in the State.

KEY HIGHLIGHTS



₹2,432 crore

Government of India financial support



13,426
Gram Panchayats

Total coverage in Andhra Pradesh



3,942
villages

On-demand connectivity



5 lakh+
rural home
fibre connections

Expected support



APBIL

State implementing agency



What is the Amended BharatNet Programme?

- Approved by Union Cabinet on 4 August 2023
- Upgrades, consolidates and expands BharatNet
- Provides future-ready broadband to Gram Panchayats and villages on demand



Coverage in Andhra Pradesh



1,692 Phase I
Gram Panchayats:
upgrade from linear to
ring topology



11,254 Phase II
Gram Panchayats



480 newly created
Gram Panchayats

Why Ring Topology Matters



If one link fails, data can move through another route. This improves network resilience and service stability.



Digital Bharat Nidhi (DBN)

- New name of the Universal Service Obligation Fund (USOF)
- Works under the Department of Telecommunications
- Supports telecom access in underserved and remote areas



WHY IT MATTERS



Stronger rural digital infrastructure



Better last-mile connectivity



Inclusive digital growth



Bridges the rural-urban digital divide

- In simple terms, if one part of the network faces disruption, data can still move through another route. This improves **network resilience** and reduces the risk of complete

service failure.

- In rural broadband networks, ring topology can help provide more stable internet connectivity.



About Digital Bharat Nidhi

- **Digital Bharat Nidhi (DBN)** is the new name of the **Universal Service Obligation Fund (USOF)**.
- The USOF was established under the **Indian Telegraph (Amendment) Act, 2003**, with effect from **1 April 2002**.
- Under the **Telecommunications Act, 2023**, the Universal Service Obligation Fund became **Digital Bharat Nidhi**.
- DBN functions as an attached office of the **Department of Telecommunications**, Ministry of Communications.
- Its mandate is to support universal access to telecommunication services in underserved rural, remote and urban areas.

Major Schemes Supported by DBN

Digital Bharat Nidhi supports several telecom connectivity projects, including:

- **BharatNet**
- **4G Saturation Project**
- Mobile service in uncovered areas of **Aspirational Districts**
- Connectivity in **Left Wing Extremism-affected areas**
- Telecom services in **Himalayan and border areas**
- Connectivity in **Islands**
- Telecom projects in the **North-Eastern Region**

Significance of the Initiative

1. Strengthening Rural Digital Infrastructure

- The programme will improve broadband infrastructure in rural Andhra Pradesh. Better connectivity will help villages access digital services more effectively.

2. Promoting Digital Inclusion

- Many rural areas still face poor internet access. The programme will help reduce the **digital divide** and bring remote communities into the digital economy.

3. Improving E-Governance

- Strong broadband connectivity can improve delivery of government services such as certificates, welfare benefits, land records, pensions and grievance redressal.

4. Supporting Online Education

- Rural students can benefit from online classes, digital libraries, skill courses and competitive exam resources.
- This is especially important for students in remote villages.

5. Strengthening Telemedicine

- Improved internet connectivity can support online medical consultations, health records, remote diagnosis and digital health services.
- This can reduce the need for rural people to travel long distances for basic medical advice.

6. Promoting Digital Payments

- Better connectivity can expand the use of UPI, Aadhaar-enabled payments and digital banking services in rural areas.

7. Boosting Rural Economy

- Internet connectivity can help farmers, small traders, women entrepreneurs and rural youth access markets, government schemes and digital platforms.

8. Supporting Knowledge Economy

- The programme supports the vision of a **digitally empowered society and knowledge economy**, where information, skills and technology become tools of development.

Challenges in Implementation

1. Last-Mile Connectivity Issues

- Providing broadband to Gram Panchayats is important, but the real challenge is to ensure that households, schools, health centres and small businesses actually receive reliable connectivity.

2. Maintenance of Infrastructure

- Rural telecom infrastructure requires regular maintenance. Fibre cuts, power issues and equipment damage can affect service quality.

3. Affordability

- Even if internet infrastructure is available, rural households may not use it fully if data plans, devices or service charges are costly.

4. Digital Literacy Gap

- Many rural citizens may not know how to use online services. Without digital literacy, connectivity alone may not produce full benefits.

5. Coordination Among Agencies

- The programme involves several agencies such as DBN, DoT, State Government, APBIL, BSNL and APSFL. Effective coordination is necessary for timely implementation.

6. Quality of Service

- Rural users need stable speed, low downtime and reliable network service. Poor quality may reduce trust in digital services.

Way Forward

1. Strengthen Last-Mile Delivery

- Connectivity should reach schools, Anganwadi centres, health centres, Panchayat offices, Common Service Centres and rural households.

2. Ensure Timely Implementation

- Clear timelines, monitoring systems and accountability mechanisms are needed to avoid delays.

3. Promote Digital Literacy

- Training programmes should be organised for students, women, farmers, self-help groups and small entrepreneurs.

4. Improve Service Affordability

- Affordable broadband plans and support for low-cost digital devices can increase adoption in rural areas.

5. Encourage Local Entrepreneurship

- Village-level entrepreneurs can be encouraged to provide fibre connections, repair services and digital assistance.

6. Integrate with Public Services

- The network should be linked with e-Governance, telemedicine, online education, digital agriculture and welfare delivery platforms.

7. Focus on Network Maintenance

- Regular maintenance, local technical support and quick grievance redressal will be essential for reliable service.

Conclusion

The agreement for implementing the **Amended BharatNet Programme in Andhra Pradesh** is an important step towards strengthening rural digital infrastructure.

- With **₹2,432 crore financial support**, coverage of **13,426 Gram Panchayats**, and on-demand connectivity to **3,942 villages**, the programme can significantly improve digital access in rural Andhra Pradesh.
- However, the success of the programme will depend not only on laying fibre networks but also on ensuring affordable access,

digital literacy, reliable service and effective use of digital platforms. If implemented properly, it can transform rural connectivity into a powerful tool for inclusive development.

Andhra Pradesh Named “Best Tourism Promotion State” at GTM Tourism Awards 2026

Source: [Deccan Chronicle](#)

Relevance: APPSC Group 1 and Group 2 - AP Economy, Tourism, Infrastructure, Employment Generation

Important Key Words

For Prelims

- Global Travel Market Tourism Awards 2026, Best Tourism Promotion State, Andhra Pradesh Tourism Policy 2024–29, Caravan Tourism, Spiritual Tourism Circuits

For Mains

- Tourism-led economic growth, employment generation, destination development, digital branding, coastal tourism, spiritual tourism, PPP model, regional infrastructure development, investment promotion, sustainable tourism

Why in News?

Andhra Pradesh Tourism has been selected as the “Best Tourism Promotion State” at the Global Travel Market Tourism Awards 2026.

- The award recognises the state’s efforts in tourism promotion, digital branding, destination development and infrastructure reforms. Andhra Pradesh

Tourism Minister **Kandula Durgesh** has been invited to receive the award on **4 June 2026** at **The Leela Hotel, Kovalam, Kerala**.

Key Highlights

Andhra Pradesh received this recognition for its active tourism promotion under the coalition government. The state has focused on tourism as a **mission-mode sector** to attract investment, increase tourist footfall and generate employment.

- The government has introduced the **Andhra Pradesh Tourism Policy 2024–29**, which aims to make tourism a major driver of economic growth. The policy supports reforms in **caravan tourism, homestays, bed-and-breakfast facilities, land allotment and tent cities**.
- The state has also signed **more than 100 MoUs within 18 months**, attracting investments of over **₹20,000 crore** in the tourism sector.



Andhra Pradesh Tourism Policy and Reforms

The **Andhra Pradesh Tourism Policy 2024–29** is presented as one of the country’s comprehensive tourism policies. It focuses on developing tourism through investment, infrastructure and private sector participation.

ANDHRA PRADESH TOURISM

Best Tourism Promotion State – GTM Tourism Awards 2026

WHY IN NEWS?

- Andhra Pradesh Tourism has been selected as the 'Best Tourism Promotion State' at the Global Travel Market (GTM) Tourism Awards 2026.
- Tourism Minister Kandula Durgesh will receive the award on **4 June 2026** at The Leela Hotel, Kovalam, Kerala.

★ KEY HIGHLIGHTS ★

Tourism as a mission-mode sector

Digital branding + destination development + infrastructure reforms

Andhra Pradesh Tourism Policy 2024–29

100+ MoUs signed in 18 months

Investment attracted: **₹20,000+ crore**

— POLICY & REFORMS —

Caravan tourism

Homestays & Bed-and-Breakfasts

Tent Cities under PPP model

Land allotment reforms

Digital campaigns to boost tourism visibility

⇒ MAJOR TOURISM SECTORS ⇒

1 COASTAL TOURISM

- 1,053-km coastline
- Suryalanka Beach

2 SPIRITUAL TOURISM

- Tirumala, Srisailem, Vijayawada, Arasavalli

3 ADVENTURE TOURISM

- Araku Valley, Gandikota, Lambasingi, Suryalanka Beach

4 CULTURAL TOURISM

- Araku Utsav, Flamingo Festival, Kondaveedu Utsav

⇒ WHY IT MATTERS ⇒

Boosts tourist footfall

Generates employment

Promotes investment and regional development

tourism visibility.

These reforms aim to make Andhra Pradesh a competitive destination for both domestic and international tourists.

Major Tourism Sectors in Andhra Pradesh

1. Coastal Tourism

Andhra Pradesh has a **1,053-km coastline**, one of the longest in India. The state aims to develop this coastline into a **world-class beach tourism destination**.

Important coastal destinations include **Suryalanka Beach** and other beach tourism locations.

2. Spiritual Tourism

The state is strengthening spiritual tourism circuits connecting major pilgrimage centres such as:

- **Tirumala**
- **Srisailem**
- **Vijayawada**
- **Arasavalli**

This can help in promoting religious tourism and improving local economies around pilgrimage centres.

3. Adventure Tourism

Adventure tourism projects are being promoted in places such as:

- **Araku Valley**
- **Gandikota**
- **Lambasingi**
- **Suryalanka Beach**

These destinations have natural and geographical advantages for adventure and eco-tourism.

Major reforms include:

- Promotion of **caravan tourism** for flexible and road-based travel.
- Support for **homestays** and **bed-and-breakfast facilities** to improve local participation.
- Development of **tent cities** under the **Public-Private Partnership model**.
- Land allotment reforms for tourism infrastructure.
- Digital campaigns to improve the state's

4. Cultural Tourism

Cultural festivals are being used to promote Andhra Pradesh's heritage and identity.

Important festivals include:

- Araku Utsav
- Flamingo Festival
- Kondaveedu Utsav

Such festivals improve visibility and attract tourists interested in culture, nature and local traditions.

Significance

Economic Significance

- Tourism can become an important source of **state revenue, private investment and local business growth**. Investments of more than **₹20,000 crore** show the potential of tourism as a growth sector.

Employment Generation

- Tourism creates direct and indirect jobs in hotels, transport, food services, local crafts, tour operations and event management. It is especially useful for rural and semi-urban areas.

Regional Development

- Tourism development can improve roads, sanitation, digital connectivity and public facilities in less-developed regions. This can support balanced regional development.

Promotion of Local Culture

- Festivals and heritage circuits help preserve and promote local art, culture, food and traditions. This also strengthens the cultural identity of the state.

Investment Promotion

- The use of **PPP models**, MoUs and digital branding can attract domestic and global investors into tourism infrastructure.

Challenges

Andhra Pradesh has strong tourism potential, but some challenges remain.

- Many tourist destinations need better **last-mile connectivity**.
- Coastal tourism requires careful management to avoid **environmental damage**.
- Tourism infrastructure must ensure safety, cleanliness and public amenities.
- Excessive commercialisation may affect local culture and ecology.
- Skilled manpower is needed in hospitality, guiding, transport and digital tourism services.
- Coordination among departments is necessary for smooth implementation of tourism projects.

Way Forward

The state should focus on **sustainable and inclusive tourism development**.

- Develop coastal tourism with strict environmental safeguards.
- Improve roads, public transport and digital access to tourist destinations.
- Promote local communities as partners through homestays, local guides and handicrafts.
- Build strong safety, sanitation and emergency response systems at tourist locations.
- Use digital platforms for destination branding, booking support and tourist information.
- Integrate tourism with local agriculture, food, culture and handicraft sectors.
- Encourage eco-tourism in areas like Araku, Lambasingi and Gandikota with proper carrying-capacity planning.

Conclusion

The recognition of Andhra Pradesh as the “**Best Tourism Promotion State**” at the **GTM Tourism Awards 2026** is an important milestone for the state’s tourism sector. It reflects the growing role of **policy reforms, digital branding, investment promotion and destination development**.

For long-term success, Andhra Pradesh must balance tourism growth with **environmental protection, local community participation and sustainable infrastructure**. Tourism can become a major tool for **employment generation, regional development and inclusive economic growth**.

Amaravati Quantum-Secure Communications Test Bed

Source: [The Hindu](#)

Relevance: APPSC Group 1 Paper -V, SCIENCE AND TECHNOLOGY –Cyber Security, Indigenous Technology Development, Digital Infrastructure

Important Key Words

For Prelims

- Quantum Communication, Quantum-Secure Communications Test Bed, C-DOT, Department of Telecommunications, SRM University-A.P., Amaravati Quantum Valley, Cyber Resilience, Photonic Systems, Optical Systems, Encryption Technologies, Make in India

For Mains

- Trusted Digital Infrastructure, Cyber Security Capabilities, Deep-Tech Innovation, Indigenous Technology

Development, Secure Network
Infrastructure, Research and Startup
Ecosystem, Frontier Technologies

Why in News?

Andhra Pradesh Chief Minister N. Chandrababu Naidu announced that **SRM University-A.P.**, in collaboration with **C-DOT**, the **Department of Telecommunications**, Government of India, and **Amaravati Quantum Valley**, will establish a **first-of-its-kind Quantum-Secure Communications Test Bed**.

- The announcement was made on the occasion of **World Telecommunication and Information Society Day**.
- This initiative aims to strengthen **Amaravati’s quantum technology ecosystem** and promote secure communications, cyber resilience and trusted digital infrastructure.



The initiative reflects Andhra Pradesh's commitment to promoting Make in India technologies and creating highly secure digital infrastructure, says Chief Minister N. Chandrababu Naidu. File | Photo Credit: G.N. RAO

Background and Context

Digital communication has become an essential part of governance, banking, defence, education, health services and business. However, the rise of cyber threats has created the need for more secure communication systems.

Source: The Hindu | **GS Paper III: Science & Technology, Cyber Security**

Amaravati Quantum-Secure Communications Test Bed

— Quick Revision Notes —

1 Why in News?



AP CM N. Chandrababu Naidu announced a **Quantum-Secure Communications Test Bed**.



It will be set up by **SRM University-A.P.** with **C-DOT, DoT** and **Amaravati Quantum Valley**.



Announced on **World Telecommunication and Information Society Day**.

2 Background



Secure digital communication is vital for **governance, banking, defence and business**.



Rising cyber threats demand **stronger protection**.



Future quantum computers may **challenge existing encryption**.



Amaravati is emerging as a **frontier-tech hub**.

3 Key Focus Areas



Quantum communication hardware



Photonic & optical systems



Encryption technologies



Secure network infrastructure



Cyber defence solutions

4 Quantum-Secure Communication



Uses quantum principles or **quantum-safe encryption** to protect data.



Designed for future-ready secure communication.



QKD

Quantum Key Distribution enables highly secure key sharing. Any interception can be detected.

5 Why it Matters



Cyber resilience



Trusted digital infrastructure



Make in India innovation



Opportunities for students, researchers & startups



Helps position Amaravati as a major quantum and deep-tech innovation hub.

- Traditional encryption systems may face challenges in the future because powerful quantum computers can break many present-day security methods. Therefore, countries are investing in **quantum-safe and quantum-secure communication technologies**.
- Andhra Pradesh is trying to position **Amaravati** as an emerging centre for **frontier technologies**, especially through the **Amaravati Quantum Valley** initiative.
- Earlier, **Quantum Computing Reference Facilities** were launched on **April 14, 2026**. The new Quantum-Secure Communications Test Bed is another step in this direction.

Key Highlights

The proposed facility will act as a **research and testing platform** for advanced technologies related to secure communication and cyber defence.

It will focus on:

- **Quantum communication hardware**
- **Photonic and optical systems**
- **Encryption technologies**
- **Secure network infrastructure**
- **Next-generation cyber defence solutions**

The project is expected to support **students, researchers, startups, innovators and young technology professionals** from Andhra Pradesh.

It also reflects the state's focus on **Make in India technologies**, indigenous innovation and secure digital infrastructure.

What is Quantum-Secure Communication?

Quantum-secure communication refers to communication systems that use principles of quantum science or quantum-safe encryption methods to protect information from cyber-attacks.

In simple terms, it aims to make digital communication more secure, especially against future threats from advanced computing technologies.

- One important area is **Quantum Key Distribution (QKD)**. It allows two users to share encryption keys in a highly secure manner. Any attempt to disturb or intercept the communication can be detected.

Significance of the Initiative

1. Strengthens Cyber Security

- The test bed can help develop technologies for protecting sensitive communication networks. This is important for sectors like defence, banking, governance, telecom and critical infrastructure.

2. Promotes Make in India

- The initiative supports the development of **indigenous technology** in advanced communication and cyber security. It reduces dependence on imported systems.

3. Builds Amaravati as a Deep-Tech Hub

- The project can help position **Amaravati Quantum Valley** as a centre for **quantum technologies**, advanced manufacturing and innovation.

4. Supports Students and Researchers

- Universities and research institutions will get access to a practical testing platform. This can improve research quality and skill development in emerging technologies.

5. Encourages Startups and Innovation

- Startups working in cyber security, optical systems, encryption and communication technologies can use such platforms for testing and product development.

6. Helps India's Technological Advancement

- Quantum communication is an important

area for national security and digital sovereignty. Such initiatives can strengthen India's long-term cyber and technological capabilities.

Challenges

1. High Cost of Quantum Technologies

- Quantum communication systems require advanced equipment, laboratories and skilled professionals. This may involve high investment.

2. Shortage of Skilled Human Resources

- India needs more trained experts in quantum science, photonics, cryptography and cyber security.

3. Need for Industry-Academia Linkages

- The success of such a test bed depends on strong cooperation between universities, government agencies, startups and industry.

4. Technology Standardisation

- Quantum-secure communication technologies require proper technical standards, testing norms and security protocols.

5. Scaling from Lab to Market

- Research outcomes must be converted into usable products and services. This requires funding, incubation and industry support.

Way Forward

- Strengthen collaboration between government, academia, startups and telecom industry.
- Create specialised training programmes in quantum communication, cyber security and photonics.
- Support startups through funding, incubation and testing access.

- Develop national standards for **quantum-safe communication systems**.
- Link the project with India's broader goals under **Digital India, Make in India** and the **National Quantum Mission**.
- Encourage public sector and private sector use cases in defence, governance, banking and critical infrastructure.

Conclusion

The Quantum-Secure Communications Test Bed in Amaravati is an important step towards building a secure and future-ready digital infrastructure. It can strengthen Andhra Pradesh's position in advanced technologies and support India's broader goal of technological self-reliance.

- By combining research, innovation, cybersecurity and indigenous technology development, the initiative can make Amaravati an important centre for India's emerging quantum ecosystem.

A.P. Sets Timeline for 36 Irrigation Projects by 2028

Source: [The Hindu](#)

Relevance: APPSC: G1 MAINS Paper – IV – ECONOMY AND DEVELOPMENT OF INDIA AND ANDHRA PRADESH, Andhra Pradesh Economy, Irrigation Projects, Agriculture, Regional Development

Important Key Words

For Prelims

- Polavaram Project, Handri-Neeva Sujala Sravanthi, Veligonda Project, Polavaram Left Main Canal, Water Calendar, Lift Irrigation, Ayacut, Jaladhara-Jalaharathi,

Groundwater Recharge, River Interlinking

For Mains

- Irrigation governance, water security, agricultural planning, regional imbalance, drought-proofing, maintenance of irrigation systems, farmer-centric water management, climate-resilient agriculture

Why in News?

The Andhra Pradesh government has prepared a **time-bound action plan** to complete **36 irrigation projects between 2026 and 2028**.

- According to the State Water Resources Development Minister, the plan includes **25 pending projects** and **11 newly identified projects**. These projects have been given clear deadlines, implementation schedules and foundation milestones.
- The government has also decided to introduce a **Water Calendar** for the first time to specify irrigation water release dates for major deltas and ayacut regions.

Key Highlights

The Andhra Pradesh government aims to give a new direction to the irrigation sector by completing key projects in a phased manner.

The major focus is on:

- Completion of long-pending irrigation projects
- Timely water supply to farmers
- Strengthening lift irrigation systems
- Improving groundwater recharge
- Supporting agriculture and horticulture planning
- Reducing regional imbalance in water availability

The government has also proposed a **10-year maintenance model** for lift irrigation systems. This is expected to ensure regular operation, transparency and uninterrupted water supply.

Important Projects and Timelines

Project / Initiative	Target Timeline
Veligonda Project Phase-I	August 2026
Handri-Neeva Sujala Sravanthi Phase-II	October 2026
Polavaram Left Main Canal water supply to North Andhra	July 2026
Polavaram Project	June-July 2027
Flood protection, river interlinking and lift irrigation works	Up to December 2028

Reports also indicate that the irrigation calendar includes works such as **Polavaram Left Main Canal, Veligonda Phase-I**, canal modernisation and several lift irrigation projects across Rayalaseema and North Andhra.

What is Water Calendar?

A **Water Calendar** is a planned schedule that clearly mentions when irrigation water will be released to different deltas, canals and ayacut areas.

It helps farmers to plan:

- Sowing season
- Crop selection
- Use of fertilizers
- Labour requirement
- Horticulture and agriculture operations

This system can improve coordination between the **Water Resources Department, Agriculture Department** and **Horticulture Department**.

A.P. Irrigation Action Plan (2026–2028)

36 Projects • Water Calendar • Farmer-Centric Irrigation

AT A GLANCE



- 36 irrigation projects to be completed between 2026 and 2028
- 25 pending projects + 11 newly identified projects
- Clear deadlines, implementation schedules and foundation milestones
- First-time introduction of a "Water Calendar"

KEY FOCUS AREAS



Completion of long-pending irrigation projects



Timely water supply to farmers



Strengthening lift irrigation systems



Improving groundwater recharge



Supporting agriculture and horticulture planning



Reducing regional imbalance in water availability



10-year maintenance model for lift irrigation systems

IMPORTANT PROJECTS & TIMELINES

1



Veligonda Project Phase-I — August 2026

2



Polavaram Left Main Canal water supply to North Andhra — July 2026

3



Handri-Neeva Sujala Sravanthi (HNSS) Phase-II — October 2026

4



Polavaram Project — June–July 2027

5



Flood protection, river interlinking and lift irrigation works — Up to December 2028

WHAT IS WATER CALENDAR?



A planned schedule for the release of irrigation water to deltas, canals and ayacut areas.

HELPS FARMERS PLAN



Sowing season



Crop selection



Use of fertilizers



Labour requirement



Horticulture and agriculture operations



WHY IT MATTERS



Improves irrigation planning



Enhances coordination among Water Resources, Agriculture and Horticulture Departments



Supports better farm decision-making



Significance

1. Support to Farmers

- A clear water release schedule will help farmers plan cultivation in advance. It reduces uncertainty during the sowing season.

2. Drought-Proofing of Rayalaseema

- Projects such as **Handri-Neeva Sujala Sravanthi** are important for drought-prone areas of Rayalaseema. They can improve irrigation access and drinking water availability.

3. Development of North Andhra

- Water supply through the **Polavaram Left Main Canal** can support agriculture and drinking water needs in North Andhra.

4. Completion of Polavaram Project

- The **Polavaram Project** is one of Andhra Pradesh's most important multipurpose irrigation projects on the Godavari River. It has importance for irrigation, drinking water, power generation and inter-basin water transfer.

5. Better Use of Lift Irrigation

- The proposed **10-year maintenance model** can improve the efficiency of lift irrigation systems. It can reduce breakdowns and ensure regular water delivery.

6. Groundwater Recharge

- The **Jaladhara-Jalaharathi** programme aims to promote groundwater recharge as a mass movement. This is important because groundwater is a major source of irrigation and drinking water in many rural areas.

Challenges

1. Financial Burden

- Large irrigation projects require huge investment. Cost escalation and delayed

funding may affect completion.

2. Land Acquisition and Rehabilitation

- Projects like dams, canals and reservoirs may involve land acquisition and rehabilitation of affected families.

3. Environmental Concerns

- Major irrigation and river interlinking projects may affect forests, river ecology and biodiversity.

4. Maintenance of Lift Irrigation

- Lift irrigation systems need regular power supply, repair and maintenance. Without proper management, they may become costly and inefficient.

5. Inter-State Water Issues

- Rivers such as Godavari and Krishna involve multiple states. Water sharing disputes may affect project execution and operation.

6. Climate Variability

- Erratic rainfall, floods and droughts can disturb irrigation planning. Therefore, irrigation management must become climate-resilient.

Way Forward

- Complete projects within the announced timelines through strict monitoring.
- Use digital dashboards and real-time project tracking.
- Ensure transparent tendering and expenditure monitoring.
- Strengthen coordination between irrigation, agriculture and horticulture departments.
- Give priority to tail-end farmers and drought-prone areas.
- Improve canal maintenance and reduce water losses.
- Promote micro-irrigation along with major

irrigation projects.

- Ensure proper rehabilitation and environmental safeguards.
- Link the **Water Calendar** with crop advisory services for farmers.

Conclusion

Andhra Pradesh's plan to complete **36 irrigation projects by 2028** is significant for agriculture, water security and regional development. The proposed **Water Calendar** can make irrigation governance more predictable and farmer-friendly. However, success will depend on timely execution, financial discipline, environmental care and proper maintenance of irrigation systems.

Bharat Forge to Set Up India's First Private Marine Gas Turbine Facility in Andhra Pradesh

Source: [BW Businessworld](#)

Relevance: APPSC G1 MAINS Paper V: Science and Technology, Defence Manufacturing, Infrastructure, Industrial Development

Important Key Words

For Prelims

- Bharat Forge, Marine Gas Turbine, MGT, Andhra Pradesh Defence Manufacturing Corridor, Visakhapatnam, INS Eksila, Eastern Naval Command, Hot Test Cell, Naval Propulsion, Defence Manufacturing

For Mains

- Atmanirbhar Bharat in Defence, Naval Self-Reliance, Private Sector Participation, Defence Industrial Corridor, Import

Dependence, Maintenance Repair and Overhaul, Strategic Autonomy, Maritime Security

Why in News?

Bharat Forge has signed a Memorandum of Understanding with the **Government of Andhra Pradesh** to establish India's first private-sector **Marine Gas Turbine repair, overhaul and indigenous development facility** at **Visakhapatnam**.

- The facility will be developed over nearly **80 acres** within the **Andhra Pradesh Defence Manufacturing Corridor** and is expected to generate around **750 direct and indirect jobs**.

What is a Marine Gas Turbine?

A **Marine Gas Turbine** is an engine used to power naval ships and other marine platforms. It converts fuel energy into mechanical power, which helps in moving the ship.

Marine gas turbines are important because they provide:

- High power output
- Faster acceleration
- Compact design
- Reliable propulsion for warships

They are widely used in modern naval surface combatants because warships need speed, flexibility and quick response during operations.

Project Phases

Phase 1: Repair and Overhaul Facility

The first phase will establish a Marine Gas Turbine repair and overhaul complex.

It will include:

- Repair of gas turbine components

BHARAT FORGE TO SET UP INDIA'S FIRST PRIVATE MARINE GAS TURBINE FACILITY IN ANDHRA PRADESH

WHY IN NEWS?



Bharat Forge signed an MoU with the Government of Andhra Pradesh.



It will establish India's first private-sector Marine Gas Turbine repair, overhaul and indigenous development facility.



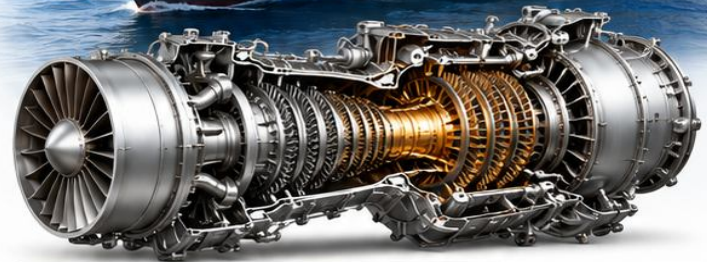
The project will come up at Visakhapatnam on nearly **80 acres**.



It is expected to generate around **750 direct and indirect jobs**.

KEY HIGHLIGHTS

	Project	India's first private-sector Marine Gas Turbine facility
	Company	Bharat Forge
	Location	Visakhapatnam, Andhra Pradesh
	Area	Nearly 80 acres
	Corridor	Andhra Pradesh Defence Manufacturing Corridor
	Nearby Defence Institutions	INS Eksila and Eastern Naval Command
	Jobs Expected	Around 750 direct and indirect jobs
	Main Purpose	Repair, overhaul, testing and indigenous development of marine gas turbines



WHAT IS A MARINE GAS TURBINE?

A **Marine Gas Turbine** is an engine used to power naval ships and other marine platforms. It converts fuel energy into mechanical power, which helps move the ship.



WHY IS IT IMPORTANT?



HIGH POWER OUTPUT



FASTER ACCELERATION



COMPACT DESIGN



RELIABLE PROPULSION FOR WARSHIPS

VISAKHAPATNAM, ANDHRA PRADESH



**USED IN MODERN NAVAL SURFACE COMBATANTS
BECAUSE WARSHIPS NEED SPEED, FLEXIBILITY AND QUICK RESPONSE.**



- Hot-section restoration
- Repair of blades, vanes and combustion liners
- Component manufacturing

- Non-destructive evaluation laboratory
 - Faster repair support for naval assets
- Hot-section parts operate under very high

temperature and pressure. Their repair is technically difficult and strategically important.

Phase 2: Indigenous Development and Testing

The second phase will add:

- Marine Gas Turbine development and assembly hall
- **Hot test cell**
- Testing of engines under real operating conditions
- Development and qualification of indigenous marine gas turbines

A hot test cell is important because engines must be tested before being deployed on naval platforms.

Importance for the Indian Navy

Marine gas turbines power many frontline surface combatants of the Indian Navy. These engines are central to naval propulsion.

Till now, India has depended heavily on foreign suppliers for:

- Repair and overhaul
- Critical components
- Engine servicing
- Advanced propulsion technology

Global supply-chain disruptions have affected repair cycles and operational readiness of naval fleets. Therefore, a domestic repair and development facility will help reduce dependence on external suppliers.

Significance of the Project

1. Boost to Defence Self-Reliance

- The project supports **Atmanirbhar Bharat** in defence manufacturing. It brings a critical naval propulsion capability into the Indian private sector for the first time.

2. Strengthening Naval Readiness

- When marine gas turbines can be repaired in India, the Indian Navy can reduce delays in maintenance. This improves operational readiness of warships.

3. Private Sector Role in Defence

- The project shows the growing role of private companies in strategic defence manufacturing. Earlier, such areas were mainly controlled by public sector units or foreign suppliers.

4. Visakhapatnam as a Defence Hub

- The facility will be located close to **INS Eksila** and the **Eastern Naval Command**. This location is useful because Visakhapatnam is one of India's most important naval centres.

5. Employment and Industrial Development

- The project is expected to create around **750 direct and indirect jobs**. It can also support local industries, component suppliers, skilled technicians and defence-related MSMEs.

6. Regional MRO Hub

- The facility may also serve as a regional repair and overhaul hub for friendly foreign navies. This can strengthen India's role as a defence service provider in the Indo-Pacific region.

Andhra Pradesh Perspective

For Andhra Pradesh, this project is important because it strengthens the state's position in the defence manufacturing sector.

It can help the state in the following ways:

- Promotes **Visakhapatnam** as a naval technology hub
- Supports the **Andhra Pradesh Defence Manufacturing Corridor**

- Attracts defence and aerospace investments
- Creates skilled employment
- Links local industry with national defence needs
- Strengthens AP's role in India's maritime security ecosystem

Challenges and Concerns

1. Technology Absorption

- Marine gas turbines involve advanced metallurgy, precision engineering and thermal systems. India needs strong research and technical capacity to fully absorb this technology.

2. Skilled Workforce

- The project requires highly skilled engineers and technicians. Training institutions must support manpower development.

3. Supply Chain Development

- India must build domestic supply chains for critical components such as blades, vanes, combustion liners and high-temperature materials.

4. Quality and Certification

- Naval engines require strict testing, safety and certification. Any failure can affect warship operations.

5. Competition with Global Suppliers

India must develop cost-effective and reliable systems to compete with established global defence suppliers.

Way Forward

- Develop strong industry-Navy collaboration for faster technology absorption.
- Promote defence MSMEs around

Visakhapatnam for component manufacturing.

- Establish skill centres for gas turbine maintenance and naval engineering.
- Encourage research in high-temperature materials and precision manufacturing.
- Link this project with India's larger maritime security and Indo-Pacific strategy.
- Use the facility to support friendly foreign navies and expand defence exports.

Conclusion

Bharat Forge's Marine Gas Turbine facility in Andhra Pradesh is a major step towards **naval self-reliance** and **private sector participation in defence manufacturing**. It will reduce India's dependence on foreign suppliers for critical naval propulsion systems.

For Andhra Pradesh, the project strengthens Visakhapatnam's role as a major defence and maritime technology hub. In the long term, such projects can improve India's defence preparedness, industrial capacity and strategic autonomy.

Andhra Model of Education: 100% School Enrolment Goal

Source: [The Hindu](#)

Relevance: APPSC Group 1 Mains paper II - Governance, Education, Human Resource Development, Welfare Schemes,

Important Key Words

For Prelims

- Andhra Model of Education, 100% Enrolment, One Class-One Teacher, GFLN, Clicker Technology,

Chromebooks, Star-Rating System, Smart Kitchens, LEAP App

For Mains

- Public Education Reform, Learning Outcomes, School Dropouts, Digital Classrooms, Foundational Literacy, Gender Sensitivity, Value-Based Education, Educational Equity

Why in News?

The Andhra Pradesh government has announced its vision to develop an “**Andhra Model of Education**” as a role model for the country. HRD Minister **Nara Lokesh** reviewed education reforms with District Education Officers and other officials at the Secretariat in Amaravati.

- The government has set a target of **100% school enrolment** and aims to strengthen government schools through better infrastructure, digital tools, teacher training and improved learning outcomes.



HRD Minister Nara Lokesh, Education Department Secretary Kona Sasidhar and School Education Commissioner Thameem Ansariya arriving for a review meeting at the Secretariat in Amaravati on Wednesday. | Photo Credit: Special Arrangement

What is the Andhra Model of Education?

The **Andhra Model of Education** is a proposed school education reform model focused on making government schools strong, modern, inclusive and student-friendly.

It aims to ensure that government schools compete with private institutions in terms of teaching quality, infrastructure, technology and learning

outcomes.

The model focuses on three major goals:

- 100% enrolment of children**
- Improvement of learning outcomes**
- Modernisation of government schools**

Key Features

1. Goal of 100% School Enrolment

- The State government expressed concern over nearly **one lakh school dropouts**. Officials were directed to identify children who were never enrolled or who had left school and bring them back into the education system.
- The government also aims to increase enrolment in government schools by at least **10%**.

2. Focus on Learning Outcomes

- The government will strengthen the **Guaranteed Foundational Literacy and Numeracy Programme**. This is important because even a small learning gap can affect lakhs of students.
- Foundational literacy means the ability to read and understand basic text. Foundational numeracy means the ability to do basic calculations.

3. Digital Learning Measures

The government plans to introduce:

- Clicker technology** for interactive classroom learning
- Chromebooks for Class IX students**
- LEAP app and dashboard system** for better monitoring and transparency

These measures aim to make classroom teaching more student-centred and technology-driven.

4. One Class-One Teacher System

- The government is implementing the **One**



ANDHRA MODEL OF EDUCATION

Andhra Pradesh's vision for stronger, modern and inclusive government schools



1 WHY IN NEWS?

- AP government unveiled the vision for an "Andhra Model of Education".
- HRD Minister Nara Lokesh reviewed reforms at Amaravati.
- Target: 100% school enrolment and stronger government schools.



2 CORE GOALS

100% Enrolment

Better Learning Outcomes

Modern Government Schools

3 KEY REFORMS

- Bring back nearly 1 lakh dropout children.
- Increase enrolment in government schools by **10%**.
- Strengthen Foundational Literacy & Numeracy (GFLN).
- One Class – One Teacher system.
- Clicker technology for interactive classrooms.
- Chromebooks for Class IX students.
- LEAP app & dashboard for monitoring.
- Star-rating system for school infrastructure.
- Smart kitchens to expand across the State.
- One model school in every district.



4 INFRASTRUCTURE FOCUS

- ✓ Leak-proof buildings
- ✓ Drinking water
- ✓ Toilets
- ✓ Benches
- ✓ Classroom maintenance



5 HOLISTIC EDUCATION

Value-based education

Gender sensitivity

Yoga

Sports

6 WHY IT MATTERS

- Reduces dropouts
- Improves public school quality
- Promotes digital learning
- Supports all-round child development



Stronger Schools. Brighter Futures. Inclusive Andhra.



EQUITY
For Every Child



TECHNOLOGY
For Every Classroom



QUALITY
For Every Learner



ACCOUNTABILITY
For Every School

Class-One Teacher system. This can improve classroom responsibility and help teachers understand the learning level of students better.

5. School Infrastructure Reform

A **star-rating system** has been introduced for government school infrastructure. Schools will be assessed on basic facilities such as:

- Leak-proof buildings
- Drinking water

- Toilets
- Benches
- Proper classroom maintenance

This will help improve accountability and infrastructure quality.

6. Smart Kitchens

- Smart kitchens, already introduced in **Kadapa schools**, will be expanded across Andhra Pradesh within two years. This can improve hygiene and efficiency in school meal preparation.

7. Model Schools in Every District

- The Minister cited the example of **Nidamarru school in Mangalagiri**, which is being developed as an international school. The government has urged officials to develop at least **one model school in every district**.

8. Holistic Education

The government also wants schools to give importance to:

- **Value-based education**
- **Gender sensitivity**
- **Yoga**
- **Sports**

This reflects a shift from only marks-based education to all-round development.

Significance

Educational Significance

- The reforms can improve access, enrolment and learning quality in government schools. Focus on foundational literacy and numeracy will help students build strong basic skills.

Social Significance

- The 100% enrolment goal is important for

children from poor families, migrant households and vulnerable communities. It can reduce child labour and prevent children from being pushed into agricultural or informal work.

Governance Significance

- The LEAP app, dashboard monitoring and star-rating system can improve transparency and accountability in school administration.

Technological Significance

- Clicker technology and Chromebooks can help modernise classroom learning. They can also reduce the gap between government and private schools.

Challenges

- Bringing back nearly **one lakh dropouts** may require strong field-level tracking.
- Digital learning may face problems such as lack of internet, device maintenance and teacher training.
- Infrastructure reforms need continuous funding and monitoring.
- Learning outcomes cannot improve only through technology; teacher quality and classroom methods are equally important.
- Migrant children and poor families may need additional social support to continue education.

Way Forward

- Conduct regular surveys to identify out-of-school children.
- Strengthen bridge courses for dropouts and first-generation learners.
- Provide proper training to teachers in digital tools and modern teaching methods.



OPERATION CLEAN SWEEP

Andhra Pradesh Urban Cleanliness Drive

May 23 – June 20, 2026 | 123 ULBs | Under SASA



1. WHY IN NEWS?

- Andhra Pradesh launched "Operation Clean Sweep" across all 123 Urban Local Bodies.
- A 4-week drive to improve urban sanitation and solid waste management.
- Implemented under "Swarna Andhra-Swachh Andhra (SASA)".



2. WHAT IS IT?

- A State-wide urban cleanliness campaign.
- Mission-mode sanitation drive for towns and cities.
- Focus: garbage removal, drain cleaning, waste segregation, and toilet hygiene.



3. KEY OBJECTIVES

- ✓ Clean all 123 ULBs
- ✓ Remove garbage black spots
- ✓ Strengthen solid waste management
- ✓ Promote source segregation
- ✓ Ensure compliance by bulk waste generators
- ✓ Prepare cities for monsoon
- ✓ Encourage behavioural change

4. MAJOR FEATURES



State-wide urban coverage



Mission-mode approach



Linked with SASA



Daily monitoring & geo-tagged reporting



Focus on civic responsibility

5. 4-WEEK ACTION PLAN

WEEK 1

GARBAGE BLACK SPOTS



- Clean roads
- Clean public places

WEEK 2

DRAINS & BACKLANES



- Desilt storm water drains
- Clean nallas and backlanes
- Prevent water stagnation

WEEK 3

WASTE SEGREGATION



- Segregation at source
- Bulk waste generator compliance
- Monitor hotels, markets, institutions

WEEK 4

PUBLIC TOILETS



- Clean public toilets
- Remove garbage vulnerable points
- Improve public hygiene

6. MONITORING



- District Collectors: district supervision



- Municipal Commissioners: city-level execution with daily monitoring



7. QUICK TAKEAWAY

Operation Clean Sweep aims to make cleanliness a daily civic responsibility and improve sanitation across urban Andhra Pradesh.



- Ensure internet, electricity and device maintenance in all schools.
- Link education reforms with nutrition, health and social welfare schemes.
- Develop model schools in every district without neglecting ordinary rural schools.

Conclusion

The Andhra Model of Education aims to make government schools more inclusive, modern and outcome-oriented. Its focus on 100% enrolment, digital learning, foundational literacy, infrastructure improvement and value-based

education can strengthen public education in Andhra Pradesh. Effective implementation, teacher support and continuous monitoring will decide its long-term success.

Operation Clean Sweep in Andhra Pradesh

Source: [The Hindu](#)

Relevance: Prelims facts: APPSC Group-1
Mains: Paper-III - Governance, Urban Local Bodies and Municipal Administration.

Important Key Words

For Prelims

- Operation Clean Sweep, 123 Urban Local Bodies, Swarna Andhra-Swachh Andhra, Solid Waste Management, Garbage Black Spots, Storm Water Drains, Source Segregation, Bulk Waste Generators, Geo-tagged Reporting, Municipal Commissioners

For Mains

- Urban sanitation, mission-mode governance, civic responsibility, behavioural change, solid waste management, monsoon preparedness, decentralised implementation, urban public health

Why in News?

- The **Andhra Pradesh government** has announced the launch of **Operation Clean Sweep** across all **123 Urban Local Bodies (ULBs)**.
- The campaign will be conducted from **May 23 to June 20, 2026**. It is a **four-week intensive cleanliness drive** aimed at improving urban sanitation and strengthening solid waste management practices.

- The initiative will be implemented under the broader **Swarna Andhra-Swachh Andhra (SASA)** programme.

What is Operation Clean Sweep?

- Operation Clean Sweep** is a State-wide urban cleanliness campaign launched by the Andhra Pradesh government.
- It aims to improve sanitation in towns and cities through a **mission-mode approach**. The campaign focuses on removing garbage points, cleaning public places, improving waste segregation, desilting drains, and strengthening public toilet cleanliness.
- The main idea is to make cleanliness a **daily civic responsibility**, not just a routine municipal activity.

Key Objectives

The main objectives of Operation Clean Sweep are:

- To improve cleanliness across all **123 ULBs** in Andhra Pradesh.
- To remove **garbage black spots** and garbage vulnerable points.
- To strengthen **solid waste management** in urban areas.
- To promote **waste segregation at source**.
- To ensure compliance by **bulk waste generators**.
- To prepare urban areas for the monsoon by cleaning drains and nallas.
- To encourage sustained **behavioural change** among citizens.

Major Features

1. State-wide Urban Coverage

- The campaign will cover all **123 Urban Local Bodies** of Andhra Pradesh, including municipal corporations, municipalities, and nagar panchayats.



2. Mission-Mode Approach

- The campaign moves beyond routine sanitation work. It follows a target-based and result-oriented approach.

3. Link with SASA Programme

- The drive is linked with the **Swarna Andhra-Swachh Andhra programme**, which focuses on public participation in cleanliness.

4. Daily Monitoring

- Implementation will be monitored regularly through **daily reporting** and **geo-tagged reporting systems**.

5. Focus on Behavioural Change

- The campaign aims to make cleanliness a regular public habit and promote citizen responsibility.

Week-wise Action Plan

Week 1: Removal of Garbage Black Spots

In the first week, authorities will focus on:

- Removing **garbage black spots**
- Cleaning roads
- Improving cleanliness in public places

Week 2: Cleaning of Drains and Backlanes

The second week will focus on:

- Desilting **storm water drains**
- Cleaning **nallas**
- Cleaning backlanes
- Preventing water stagnation before the monsoon

Week 3: Waste Segregation and Bulk Waste Generators

The third week will focus on:

- Segregation of waste at source**
- Compliance by **bulk waste generators**
- Monitoring hotels, markets, institutions,

and other large waste producers

Week 4: Public Toilets and Garbage Vulnerable Points

The final week will focus on:

- Cleaning public toilets
- Removing garbage vulnerable points
- Improving hygiene in public sanitation spaces

Implementation and Monitoring

- The campaign will be implemented through a clear administrative structure.
- District Collectors** will supervise the implementation of the drive at the district level.
- Municipal Commissioners** will oversee city-level execution.
- Daily monitoring and **geo-tagged reporting systems** will be used to track progress and ensure accountability.
- This structure helps in improving coordination between district administration and municipal bodies.

Significance

1. Improves Urban Sanitation

- The campaign can improve cleanliness in roads, markets, drains, public places, and residential areas.

2. Strengthens Solid Waste Management

- By focusing on source segregation and bulk waste generators, the initiative supports better waste collection, processing, and disposal.

3. Helps in Monsoon Preparedness

- Desilting drains and nallas before the monsoon can reduce water stagnation, urban flooding, and mosquito-borne



diseases.

4. Promotes Public Health

- Cleaner surroundings reduce the spread of diseases caused by garbage accumulation, stagnant water, and poor sanitation.

5. Encourages Civic Responsibility

- The campaign aims to make citizens active participants in cleanliness activities.

6. Improves Urban Governance

- Daily monitoring, geo-tagged reporting, and clear responsibility of officials can improve accountability in municipal administration.

Challenges

- Maintaining cleanliness after the four-week campaign may be difficult.
- Waste segregation at source requires continuous public awareness.
- Some ULBs may face shortage of sanitation workers, vehicles, and equipment.
- Bulk waste generators may not comply without strict monitoring.
- Garbage black spots may reappear if citizens continue open dumping.
- Urban drains may again get blocked due to plastic waste and construction debris.
- Behavioural change requires long-term efforts, not only short campaigns.

Way Forward

- ULBs should conduct regular cleanliness audits even after the campaign.
- Waste segregation should be made compulsory at household and commercial levels.
- Strict action should be taken against open dumping and non-compliance by bulk

waste generators.

- Citizen groups, resident welfare associations, schools, colleges, and market bodies should be involved.
- Geo-tagged reporting should be linked with public grievance redressal.
- Sanitation workers should be provided proper safety equipment and training.
- The campaign should be converted into a long-term urban sanitation movement.

Conclusion

Operation Clean Sweep is an important step towards cleaner and healthier urban areas in Andhra Pradesh. Its success depends on effective municipal action, citizen participation, strict monitoring, and sustained behavioural change.

If implemented properly, the campaign can strengthen **urban governance**, improve **public health**, and support the goal of a cleaner **Swarna Andhra-Swachh Andhra**.

AP Duo to Receive Padma Shri Awards 2026: Garimella Balakrishna Prasad and Vempaty Kutumba Sastry

Source: [Deccan Chronicle](#)

Relevance: APPSC Group 1: Paper 2, Andhra Pradesh History and Culture - Telugu devotional literature, Annamacharya tradition, cultural personalities of Andhra Pradesh, Sanskrit scholarship, Indian knowledge systems.

Important Key Words

- Padma Shri 2026, Garimella Balakrishna

Prasad, Vempaty Kutumba Sastry, Annamacharya Sankeerthanams, TTD Annamacharya Project, Asthana Vidwan, Lakshagalarchana, Advaita Vedanta, Sanskrit Poetics, Indian Philosophy, Central Sanskrit University, Gudlavalleru

Why in News?

President Droupadi Murmu will confer the **Padma Shri Awards** on **May 25, 2026**, at Rashtrapati Bhavan, New Delhi, to two distinguished personalities from Andhra Pradesh

The awardees are:

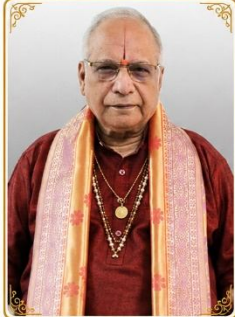
- **Garimella Balakrishna Prasad** – devotional music exponent
- **Vempaty Kutumba Sastry** – Sanskrit scholar

Garimella Balakrishna Prasad is being honoured **posthumously** for his contribution to devotional music. Vempaty Kutumba Sastry is being recognised for his contribution to **Sanskrit, literature and education**.

Key Highlights

Both awardees belong to **Andhra Pradesh** and have received national recognition for their contribution to Indian culture, literature and education.

- Garimella Balakrishna Prasad contributed to the revival and popularisation of **Annamacharya Sankeerthanams**. Vempaty Kutumba Sastry contributed to **Sanskrit learning, Advaita Vedanta, Sanskrit poetics and Indian philosophy**.
- Their recognition is important for Andhra Pradesh because it highlights the State's role in preserving **devotional music, Telugu literary heritage and classical knowledge systems**.



Garimella Balakrishna Prasad

Padma Shri 2026 (Posthumous) | Field: Art

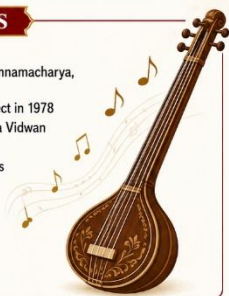
Andhra Pradesh

QUICK FACTS

- Born in 1948 in Andhra Pradesh
- Passed away on 9 March 2025
- Honoured with Padma Shri posthumously
- Field: Art
- Known for: Annamacharya Sankeerthanams

MAJOR CONTRIBUTIONS

- One of the most respected names in devotional music
- Played a major role in spreading the compositions of Tallapaka Annamacharya, the 15th-century saint-poet
- Joined the Tirumala Tirupati Devasthanams' Annamacharya Project in 1978
- Served the institution in different capacities, including as Asthana Vidwan
- Performed more than 6,000 concerts in India and abroad
- Composed music for over 1,000 Annamacharya Sankeerthanams
- Authored more than 10 books
- Released over 100 music albums
- Trained many students through the TTD Annamacharya Project
- Led over 1.6 lakh singers in the Lakshagalarchana event at Hyderabad's Parade Grounds in 2009
- The event entered the Guinness World Records





LEGACY

He helped preserve and popularise the devotional and literary legacy of Annamacharya, bringing classical devotional compositions closer to common people through music, concerts, recordings and training.

Padma Awards

The **Padma Awards** are among India's highest civilian honours. They are conferred by the **President of India**. They are generally announced on the eve of **Republic Day**.

Categories of Padma Awards

- **Padma Vibhushan** – exceptional and distinguished service
- **Padma Bhushan** – distinguished service of high order
- **Padma Shri** – distinguished service in any field

Fields Covered

Padma Awards are given in fields such as:

- Art
- Literature and education
- Medicine
- Science and engineering
- Public affairs

- Social work
- Sports
- Civil service
- Trade and industry

**VEMPATY KUTUMBA SASTRY**

Padma Shri 2026 – Literature and Education
Eminent Sanskrit Scholar from Andhra Pradesh

- Born** : 1950 at Gudlavalleru, Andhra Pradesh
- Field** : Literature and Education
- Known for** : Advaita Vedanta, Sanskrit poetics and Indian philosophy

PRESENT POSITION

- Chancellor, Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya, Kanchipuram
- National Fellowship, Indian Council of Philosophical Research, New Delhi

MAJOR ACADEMIC POSITIONS

- Vice Chancellor, Sampurnanand Sanskrit University
- Founding Vice Chancellor, Rashtriya Sanskrit Sansthan
- Rashtriya Sanskrit Sansthan is now known as Central Sanskrit University

MAJOR CONTRIBUTIONS

Authored 15 books



Published more than 50 research papers



Contributed to Advaita Vedanta



Worked on Sanskrit poetics



Promoted Indian philosophy



Helped make Sanskrit learning accessible through self-learning programmes

IMPORTANCE

His work is important for preserving Sanskrit and Indian knowledge systems. He helped connect traditional Sanskrit learning with modern academic methods and made Sanskrit education more accessible.



Recognised with Padma Shri 2026 for his outstanding contribution to literature, education, Sanskrit scholarship and Indian philosophy.

Significance for Andhra Pradesh

- The recognition of these two personalities reflects the cultural and intellectual strength of Andhra Pradesh.
- Garimella Balakrishna Prasad represents Andhra Pradesh's contribution to **Telugu devotional music** and **Annamacharya tradition**.
- Vempaty Kutumba Sastry represents Andhra Pradesh's contribution to **Sanskrit scholarship** and **Indian philosophical studies**.
- Their achievements show that Andhra Pradesh has contributed not only to regional culture but also to India's national cultural heritage.

A.P. Government Launches MSME Parks Initiative to Boost Rural Employment and Development

Source: [The Hindu](#)

Relevance: APPSC: AP Economy, rural industrialisation, employment generation, entrepreneurship, MSME policy

Important Keywords**For Prelims**

- MSME Parks, APIIC, One MSME Park per Assembly Constituency, One Family – One Entrepreneur, Flatted Factory Complex, Rural Industrialisation, Industrial Plots, Plug-and-Play Infrastructure

For Mains

- Decentralised industrial development, rural employment, local entrepreneurship, district GDP diversification, MSME-led growth, balanced regional development, industrial ecosystem

Why in News?

The Andhra Pradesh government has launched an **MSME parks initiative** to promote industrial development in rural areas. Minority Welfare Minister **N. Md. Farooq** laid the foundation stone for an MSME park at **Yalluru village in Gopspadu mandal, Nandyal district**.

- The initiative is part of the State government's plan of developing **one MSME park in every Assembly constituency**. It is also linked to the broader goal of **"One Family – One Entrepreneur."**

- Andhra Pradesh Chief Minister **N. Chandrababu Naidu** virtually launched **38 MSME parks** from Vijayawada as part of the MSME Growth Summit 2026. The larger aim is to establish industrial parks in all **175 Assembly constituencies** through plug-and-play infrastructure and cluster-based development.



Minority Welfare Minister N. Md. Farooq and Collector Rajakumari Ganiya laying the foundation stone for MSME park at Yalluru village in Gospadu mandal on Monday. PHOTO: U SUBRAMANYAM / THE HINDU | Photo Credit: U. SUBRAMANYAM

Key Highlights

The MSME park at **Yalluru village** will be developed by the **Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC)**.

- The project will be constructed on a **9-acre land parcel** at an estimated cost of **₹16.40 crore**. It will provide **37 industrial plots** for entrepreneurs and small industries.

The park will include basic industrial infrastructure such as:

- Roads
- Drainage systems
- Drinking water supply
- Electricity infrastructure
- Industrial plots for MSME units

The government also laid the foundation stone for a **Flatted Factory Complex** at **B. Thandrapadu in Kurnool district** at a cost of **₹15 crore**.

What is the MSME Parks Initiative?

The MSME Parks Initiative is a rural industrial

development programme of the Andhra Pradesh government. Under this, the government aims to develop **MSME parks in every Assembly constituency**.

- The main purpose is to create employment opportunities near villages so that local youth need not migrate to big cities for jobs.
- It also aims to support small entrepreneurs by providing ready infrastructure for setting up industries. This can reduce the initial burden on entrepreneurs and encourage more people to start small businesses.

Objectives of the Initiative

The main objectives are:

- To create **employment opportunities for local youth**
- To promote **rural entrepreneurship**
- To develop **industrial infrastructure in rural areas**
- To support **Micro, Small and Medium Enterprises**
- To increase the share of the industrial sector in district economies
- To reduce migration from villages to cities
- To promote the idea of **One Family - One Entrepreneur**

Significance

1. Promotes Rural Employment

- The initiative will help create jobs near villages. This is important because many rural youth migrate to urban areas due to lack of local employment.
- By creating MSME parks near villages, the government can provide local employment in manufacturing, services and allied activities.

2. Encourages Local Entrepreneurship



- The scheme supports young entrepreneurs by providing industrial plots and basic infrastructure. This can help people start small manufacturing units or service-based enterprises.
- The idea of **One Family – One Entrepreneur** can encourage self-employment and reduce dependence on government jobs.

3. Supports Balanced Regional Development

- Industrial growth is often concentrated in urban and coastal areas. MSME parks in every constituency can help spread industrial development to interior and rural regions.
- This can reduce regional imbalance and support inclusive growth.

4. Strengthens District Economy

- In Nandyal district, agriculture contributes about **42%** of revenue and the service sector contributes around **40%**, while the industrial sector contributes only **19%**. Industrial development can help diversify the district economy.
- This is important because overdependence on agriculture may limit income growth and employment opportunities.

5. Boosts MSME-led Growth

- MSMEs are important for employment generation, exports, innovation and local economic development. The Union Finance Minister recently highlighted the role of MSMEs in India's growth, employment and export strength.
- In this context, Andhra Pradesh's MSME parks initiative can strengthen the State's industrial base.

Challenges

1. Infrastructure Completion

- The success of MSME parks depends on timely completion of roads, power supply, water, drainage and other facilities.
- If infrastructure is delayed, entrepreneurs may not come forward to set up units.

2. Access to Credit

- Small entrepreneurs often face difficulty in getting loans. Without easy credit, industrial plots alone may not lead to successful business units.

3. Skill Gap

- Rural youth may need training in technical skills, business management, digital tools and market access.
- Without skill development, employment benefits may remain limited.

4. Market Linkages

- MSMEs need access to buyers, raw materials, logistics and digital marketplaces. If market linkages are weak, small units may not survive for long.

5. Environmental Concerns

- Industrial parks must follow pollution control norms. Drainage, waste management and water use should be planned carefully to avoid environmental problems.

Government and Institutional Support

- The key implementing agency is **Andhra Pradesh Industrial Infrastructure Corporation Limited (APIIC)**.
- APIIC is responsible for developing infrastructure in the MSME parks. The government is also promoting cluster-based development and plug-and-play



infrastructure across the State.

- The initiative is part of a larger plan to strengthen the industrial ecosystem in Andhra Pradesh and attract MSME investments in rural and semi-urban areas.

Way Forward

- The government should ensure quick completion of basic infrastructure in all MSME parks. Roads, electricity, water supply and drainage must be ready before allotment of plots.
- There should be a strong link between MSME parks and **skill development centres**. Local youth should be trained according to the type of industries planned in the area.
- Banks and financial institutions should provide easy credit support to first-generation entrepreneurs, women entrepreneurs and youth from weaker sections.
- The government should also promote **cluster-based industries** based on local resources. For example, food processing units can be promoted in agriculture-based districts.
- Digital support, marketing assistance, quality certification and export guidance should be provided to MSMEs to make them competitive.

Conclusion

The Andhra Pradesh MSME parks initiative is an important step towards **rural industrialisation and local employment generation**. By developing industrial parks in every Assembly constituency, the State can promote entrepreneurship, reduce migration and strengthen district economies.

- However, the success of the initiative depends on timely infrastructure development, credit support, skill training and market linkages. If implemented effectively, it can become a strong model for **inclusive and decentralised industrial development**.

AP Government Offers ₹10 Lakh Collateral-Free Loans for DWCRA Women

Source: [Deccan Chronicle](#)

Relevance: APPSC Relevance: GROUP 1, PAPER III - GOVERNANCE - Women self-help groups, rural livelihoods, MSME development, SERP, poverty reduction

Important Keywords

For Prelims

- DWCRA, DAY-NRLM, Collateral-Free Loan, Women-led MSMEs, SERP, Velugu, Detailed Project Report, Food Processing, Agriculture-Allied Activities

For Mains

- Women entrepreneurship, rural livelihoods, financial inclusion, self-help groups, MSME-led growth, inclusive development, credit access, grassroots enterprise development

Why in News?

The Government of Andhra Pradesh has announced a major financial initiative for **DWCRA women**. Under this initiative, eligible women can avail **personal loans up to ₹10 lakh without collateral** to start or expand **MSME units**. The announcement was made by **Kondapalli Srinivas**,

Minister for MSME, SERP, and NRI Empowerment & Relations.

- The initiative aims to strengthen **rural livelihoods** and support **women-led businesses** in Andhra Pradesh. The loans will be provided under the **Deendayal Antyodaya Yojana - National Rural Livelihoods Mission**, which focuses on poverty alleviation through self-employment and skill development.

What is the Initiative?

The initiative allows DWCRA women in Andhra Pradesh to obtain loans up to **₹10 lakh** without giving any security or collateral.

The main aim is to help women:

- Start new MSME units
- Expand existing enterprises
- Increase household income
- Strengthen rural livelihoods
- Promote women-led businesses

This is especially useful for women from economically weaker sections, as lack of collateral is often a major barrier to getting loans.



AP Minister for MSME, SERP, and NRI Empowerment & Relations Kondapalli Srinivas

What is DWCRA?

DWCRA stands for **Development of Women and Children in Rural Areas**.

It is linked to women's self-help group movement in rural areas. DWCRA groups have played an

important role in:

- Women's savings
- Small loans
- Livelihood activities
- Skill development
- Community-based development
- Poverty reduction

In Andhra Pradesh, DWCRA women are an important part of the rural self-help group ecosystem.

What is DAY-NRLM?

DAY-NRLM stands for **Deendayal Antyodaya Yojana - National Rural Livelihoods Mission**.

- It is a flagship programme for poverty reduction through community institutions such as self-help groups. Its main objective is to improve rural livelihoods through self-employment, skill development and access to credit.
- Under the present initiative, loans for DWCRA women will be provided through this framework.

Key Features of the Initiative

1. Loan up to ₹10 lakh

- DWCRA women can avail personal loans of up to **₹10 lakh** for setting up or expanding MSME units.

2. No collateral required

- The most important feature is that women do not need to provide any security or collateral. This makes the loan accessible to poor and rural women.

3. Support for new and existing enterprises

- The loans are available both for women who are already running enterprises and for women who want to start new MSME units.

AP ₹10 Lakh Collateral-Free Loans for DWCRA Women

Supporting women-led MSMEs and rural livelihoods



1 Why in News?

- Andhra Pradesh announced loans up to ₹10 lakh for DWCRA women.
- No collateral required.
- Announced by MSME Minister Kondapalli Srinivas.
- Loans under DAY-NRLM.

2 What is the Initiative?

- Start new MSME units.
- Expand existing businesses.
- Increase household income.
- Strengthen rural livelihoods.
- Promote women-led enterprises.

3 What is DWCRA?

- Development of Women and Children in Rural Areas.
- Part of rural self-help group movement.
- Supports savings, small loans, livelihoods, skills, and poverty reduction.

4 What is DAY-NRLM?

- Deendayal Antyodaya Yojana – National Rural Livelihoods Mission.
- Focus on self-employment, skill development, and access to credit.
- Supports rural livelihoods through SHGs.

5 Key Features



1. Loan up to ₹10 lakh.



2. No security or collateral.



3. For new and existing enterprises.



4. Priority to agriculture-allied and food processing sectors.



5. SERP Velugu officials help prepare DPRs and applications.



6 Priority Sectors



Drumstick cultivation



Honey production



Mushroom farming



Plant nurseries



Solar drying units



Protected farming



Fisheries



Food processing



Why it matters:



Improves financial inclusion



Boosts rural livelihoods



Strengthens women entrepreneurship in Andhra Pradesh



4. Priority to rural economy-based sectors

- Priority will be given to businesses in **agriculture-allied** and **food processing** sectors.

5. Assistance in DPR preparation

- Officials from the **Velugu division** of the **SERP Department** will help women prepare **Detailed Project Reports** and guide

them through the application process.

Priority Sectors

The government has identified sectors with strong rural employment and income potential. These include:

- **Drumstick cultivation**
- **Honey production**
- **Mushroom farming**
- **Plant nurseries**
- **Solar drying units**
- **Protected farming**
- **Fisheries**
- **Food processing units**

These sectors are suitable for rural women because they are linked to local resources, agriculture and small-scale production.

Significance

1. Promotes Women Entrepreneurship

- The initiative encourages women to become entrepreneurs instead of depending only on wage labour or household income.

2. Strengthens Rural Livelihoods

- Loans for agriculture-allied and food processing activities can create income opportunities within villages.

3. Improves Financial Inclusion

- Collateral-free loans help women who do not have land, property or assets to offer as security.

4. Supports MSME Growth

- Women-led MSMEs can contribute to local production, employment and rural industrialisation.

5. Reduces Poverty

- When women earn income, it improves family welfare, children's education,

nutrition and household savings.

6. Encourages Local Value Addition

- Activities like mushroom farming, honey production, solar drying and food processing can increase the value of local agricultural produce.

Challenges

1. Awareness Gap

- Many rural women may not know about the scheme, eligibility and application process.

2. Business Skills

- Women may need training in accounting, marketing, packaging, digital payments and business management.

3. Market Access

- Producing goods is not enough. Women-led enterprises need access to buyers, transport, branding and online markets.

4. Loan Repayment Risk

- Without proper business planning, income may not be sufficient to repay loans on time.

5. Need for Continuous Handholding

- DPR preparation alone is not enough. Women entrepreneurs need regular support after loan sanction also.

Way Forward

- The government should conduct awareness drives through **DWCRA groups, village secretariats and SERP field staff.**
- Women should be trained in basic business skills, digital payments, packaging, branding and market linkage.
- Banks should process applications in a simple and time-bound manner.
- Priority sectors should be linked with local

resources. For example, coastal areas can promote fisheries, while agriculture-rich areas can promote food processing and nurseries.

- The government should create district-level support cells to help women entrepreneurs with licensing, marketing, GST registration, quality certification and e-commerce platforms.

Conclusion

The Andhra Pradesh government's collateral-free loan initiative for DWCRA women is an important step towards **women empowerment, rural livelihood creation and MSME development**. By providing loans up to **₹10 lakh without collateral**, the scheme reduces a major barrier faced by rural women.

However, its success will depend on awareness, training, market linkages and continuous handholding. If implemented effectively, it can create a strong network of **women-led rural enterprises** in Andhra Pradesh.

India's First Indigenous Super Pressure Balloon Launched from Vijayawada

Source: [Deccan Chronicle](#)

Relevance: APPSC G1 & G2- Science and Technology, Space Technology, Defence Technology, Disaster Management

Important Keywords

For Prelims:

- Super Pressure Balloon, Mission SANA, VISTA Platform, Red Balloon Aerospace,

Vijayawada, Stratosphere, Near-Space Technology, Hydrogen Balloon, GNSS, Polymer Nanocomposite, Earth Observation, Disaster Management, Telecommunications, Non-Terrestrial Network, Payload, Andhra Pradesh Innovation Society.

For Mains:

- Near-space technology, indigenous aerospace innovation, space economy, rural connectivity, disaster monitoring, atmospheric research, strategic surveillance, deep-tech ecosystem, public-private innovation, communication infrastructure, cost-effective satellite alternatives, India's space sector reforms.

Why in News?

India's first indigenous **Super Pressure Balloon** mission was launched from **Vijayawada, Andhra Pradesh**.

The mission was flagged off by Union Civil Aviation Minister **Kinjarapu Ram Mohan Naidu**. The system was developed by **Red Balloon Aerospace** under **Mission SANA**.

The mission carried commercial and scientific payloads. It marks an important step in India's emerging **near-space technology** and **deep-tech aerospace ecosystem**.

What is a Super Pressure Balloon?

- A **Super Pressure Balloon** is a high-altitude balloon designed to operate in the stratosphere for a long duration.
- It maintains internal pressure higher than the surrounding atmospheric pressure. This allows it to remain stable at high altitudes

India's First Indigenous Super Pressure Balloon Mission

• **Mission SANA | Launched from Vijayawada, Andhra Pradesh** •

1 Why in News?

- India's first indigenous Super Pressure Balloon mission was launched from Vijayawada, Andhra Pradesh.
- Flagged off by Union Civil Aviation Minister Kinjarapu Ram Mohan Naidu.
- Developed by Red Balloon Aerospace under Mission SANA.
- Carries commercial and scientific payloads.
- Marks a major step in India's near-space and deep-tech aerospace ecosystem.

2 What is a Super Pressure Balloon?

- A high-altitude balloon designed to operate in the stratosphere for long durations.
- Maintains internal pressure higher than the surrounding atmosphere.
- Stays at a nearly constant altitude.
- Works like a floating platform in the sky.



3 About Mission SANA

- Maiden experimental mission of Red Balloon Aerospace.
- Validates India's indigenous near-space platform technology.
- Payload areas:
 - Earth observation
 - Biological experiments
 - Propulsion technologies
 - Onboard computing platforms
 - Scientific research
 - Commercial applications
- Balloon platform: "VISTA"

5 What is Near-Space?

- Region between commercial aircraft and satellites.
- Important stratospheric zone: about 20 km to 50 km.
- Useful for communication, observation, and research.
- Offers satellite-like services at lower cost and faster deployment.

4 Key Features

Material:
Advanced polymer nanocomposite

H₂
Gas used:
Hydrogen

50 kg
Payload capacity:
Up to 50 kg

Navigation:
GNSS enabled

Design altitude:
Nearly 25 km in the stratosphere

Launch data:
Reached 12.2 km over Guntur district by 10:05 a.m.

6 Applications of Super Pressure Balloons

Telecommunications
Connectivity in remote and underserved regions.

Disaster Management
Real-time monitoring, emergency communication, damage assessment.

Earth Observation
Land, crops, water bodies, forests, urban monitoring.

Atmospheric Research
Weather, climate, atmospheric composition.

Strategic Surveillance
Border and maritime monitoring.

Scientific Experiments
Testing biological and technology systems in high-altitude conditions.



Why it matters: A cost-effective near-space platform that can support connectivity, disaster response, research, and strategic applications.



for extended periods.

- Unlike ordinary balloons, super pressure balloons can stay at a nearly constant altitude and carry scientific or commercial

payloads.

- In simple terms, it acts like a **floating platform in the sky**.

About Mission SANA

Mission SANA is the maiden experimental mission of Red Balloon Aerospace.

It aims to validate India's indigenous near-space platform technology. The mission carried payloads related to:

- Earth observation
- Biological experiments
- Propulsion technologies
- Onboard computing platforms
- Scientific research
- Commercial applications

The balloon platform is also referred to as **VISTA**.

Key Features of the Balloon

- The Super Pressure Balloon has several important technological features.
- It is made of **advanced polymer nanocomposite material**. It is filled with **hydrogen gas** and is designed for long-duration operations in the stratosphere.
- The balloon can carry payloads of up to **50 kg**. It is equipped with a **Global Navigation Satellite System**, or GNSS, for tracking and navigation.
- The balloon is designed to operate at altitudes of nearly **25 km** in the stratosphere.
- During the launch, data showed that the balloon reached an altitude of **12.2 km over Guntur district** by 10:05 a.m.

What is Near-Space?

- **Near-space** refers to the region between the altitude used by commercial aircraft and the region used by satellites.
- Commercial aircraft generally fly below the stratospheric region, while satellites operate much higher in space.
- The stratospheric region, especially between

about **20 km and 50 km**, is useful because it can support high-altitude platforms for communication, observation and research.

- This region is important because it can provide services similar to satellites at lower cost and with faster deployment.

Applications of Super Pressure Balloons

1. Telecommunications

- Super Pressure Balloons can help provide communication services in remote and underserved regions.
- They can act as high-altitude communication platforms and support rural connectivity.

2. Disaster Management

- These balloons can be deployed during floods, cyclones, earthquakes and other disasters.
- They can support real-time monitoring, emergency communication and damage assessment.

3. Earth Observation

- The platform can carry sensors for observing land, water bodies, crops, forests and urban areas.
- This is useful for agriculture, environmental monitoring and planning.

4. Atmospheric Research

- Super Pressure Balloons can collect data from the stratosphere.
- This can help scientists study weather patterns, climate processes and atmospheric composition.

5. Strategic Surveillance

- Near-space platforms can support surveillance and monitoring.
- They may be useful for border monitoring, maritime awareness and security-related

applications.

6. Scientific Experiments

- The platform can carry biological, technological and computing experiments in high-altitude conditions.
- This helps test systems before they are used in satellites or other space missions.

Significance for India

1. Indigenous Technology Development

- The launch shows India's ability to develop advanced near-space platforms using domestic technology.
- This supports the goal of **Atmanirbhar Bharat** in aerospace and space technology.

2. Boost to Space Economy

- India's space economy is growing rapidly. Technologies like Super Pressure Balloons can support new commercial opportunities in telecommunications, earth observation and research.

3. Cost-Effective Alternative to Satellites

- Super Pressure Balloons can provide some services at lower cost compared to satellites.
- They do not require expensive rocket launches and can be deployed more quickly.

4. Support for Remote Connectivity

- India has many remote, hilly, tribal and border regions where communication services are limited.
- Near-space platforms can help improve connectivity in such areas.

5. Disaster Resilience

- These balloons can provide quick communication support during disasters when ground infrastructure is damaged.

6. Strategic Advantage

- Near-space technology has strategic value for surveillance, communication and

national security.

- It can help India strengthen its technological capabilities between aircraft-based systems and satellite-based systems.

7. Public-Private Innovation

- The mission highlights the growing role of Indian startups in the aerospace and space technology sectors.
- It shows how private innovation can contribute to national technological capacity.

Significance for Andhra Pradesh

- The launch from Vijayawada is important for Andhra Pradesh.
- It shows the State's growing role in aerospace, artificial intelligence, data centres, quantum technologies and deep-tech innovation.
- The mission also strengthens Andhra Pradesh's image as an emerging innovation hub.
- It can encourage investment, research, startup activity and skilled employment in the State.

Challenges

1. Technical Complexity

- Super Pressure Balloons require advanced materials, pressure control, navigation systems and payload safety mechanisms.

2. Weather Dependence

- High-altitude balloon launches are affected by wind, temperature and atmospheric conditions.

3. Regulatory Framework

- Near-space platforms need clear rules for airspace management, safety, communication frequencies and data use.

4. Payload Safety

- Scientific and commercial payloads must be protected from extreme temperature, pressure and radiation conditions.

5. Long-Duration Reliability

- For commercial use, the platform must remain stable and operational for long periods.

6. Security Concerns

- Near-space platforms may raise concerns related to surveillance, data security and cross-border movement.

7. Scaling Up

- A successful experimental launch is only the first step. India must scale the technology for regular commercial and strategic use.

Way Forward

1. Develop Clear Near-Space Policy

- India should prepare a clear regulatory framework for near-space platforms, including safety, airspace use and data governance.

2. Encourage Startup Innovation

- Startups working in aerospace, communication and earth observation should receive financial, technical and regulatory support.

3. Strengthen Public-Private Partnership

- Government agencies, research institutions and private companies should collaborate in near-space technology.

4. Promote Disaster Management Use

- Super Pressure Balloons should be integrated into disaster communication and early warning systems.

5. Support Rural Connectivity

- Near-space platforms can be used to improve internet and communication

services in remote villages, border areas and tribal regions.

6. Invest in Materials Research

- India should strengthen research in advanced polymers, lightweight materials, hydrogen systems and high-altitude navigation.

7. Link with National Space Policy

- Near-space technology should be connected with India's larger space reforms, satellite ecosystem and commercial space economy.

Conclusion

The launch of India's first indigenous Super Pressure Balloon from Vijayawada is a major achievement in India's near-space technology journey.

- It shows the potential of Indian startups, indigenous innovation and public-private collaboration in the aerospace sector.
- This technology can support telecommunications, disaster management, atmospheric research, earth observation and strategic surveillance.

For India, Super Pressure Balloons can become an important bridge between aircraft and satellites. With proper policy support, safety regulation and investment, near-space platforms can play a significant role in India's future space economy and national development.