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CONTENTS

#	CONTENTS	Topics
1	ANDHRA PRADESH	28
2	POLITY & GOVERNANCE	10
3	ECONOMY, SCHEMES & AGRICULTURE	15
4	INTERNATIONAL RELATIONS & ORGANISATIONS	14
5	SCIENCE, TECHNOLOGY, HEALTH & DEFENCE	14
6	ENVIRONMENT, GEOGRAPHY & DISASTERS	14
7	REPORTS & INDICES	7
8	PERSONS, AWARDS, SPORTS, ART & CULTURE	8

ANDHRA PRADESH

■ Pedestrian Safety and Universal Accessibility Policy, 2026

In News: Andhra Pradesh became the **first State in India to notify a comprehensive framework for pedestrian safety and universal accessibility**, approved by the Cabinet on **6 August 2026**.

Legal basis and context

- It translates the Supreme Court's directions in **S. Rajaseekaran v. Union of India (decided 7 October 2025)** into enforceable State-level standards.
- In **2023, 35,221 pedestrians were killed** in road accidents across India — **20.4% of all road fatalities**.
- **Universal accessibility** means designing public spaces so that they can be used by everyone, including the elderly, children, pregnant women and persons with disabilities, without the need for special adaptation.
- It gives practical effect to the **Rights of Persons with Disabilities Act, 2016**, which mandates accessibility in public buildings and transport, and to the **Accessible India Campaign (Sugamya Bharat Abhiyan, 2015)**.

Key features

- A prescribed **minimum clear walking space of 2 metres** on footpaths.
- **Vehicles must negotiate the ramps** at building and property entrances — pedestrians are not to be made to climb up and down repeatedly.
- For vulnerable groups: **tactile ground indicators** for the visually impaired, **Braille signage and audible pedestrian signals**, traffic signal timings adjusted for slower walking speeds, and **kerb ramps** for wheelchair users.
- Preference for **safe at-grade crossings**; where foot-over-bridges or subways are unavoidable, **lifts are mandatory**, along with LED lighting, CCTV surveillance and **panic buttons linked to the local police**.

■ Veligonda Project — Krishna Water to Drought-Prone Prakasam

In News: Phase-I of the **Poola Subbaiah Veligonda Irrigation Project** was inaugurated at Markapuram on **31 August 2026**, nearly three decades after its foundation stone was laid on **5 March 1996**.

Project fundamentals

- It is an **inter-basin transfer** from the **Krishna River (Srisailem Reservoir)** to the **Gundlakamma basin**, moving water **by gravity** through **tunnels bored under the Nallamala hills**.
- Storage reservoir: **Nallamala Sagar**; the project serves **Prakasam, Nellore and YSR Kadapa** districts.
- **Phase-I:** release of **10.70 TMC ft**, irrigating about **1.19 lakh acres** and supplying drinking water to about **4 lakh people**.
- **Ultimate potential:** irrigation of **4.47 lakh acres** and drinking water for about **23 lakh people**; Phase-II is to extend irrigation to a further **3.283 lakh acres**.
- **₹768 crore** has been paid as compensation to **6,206 displaced families**.
- It offers a permanent solution to the **fluoride problem in western Prakasam** through tap connections — excess fluoride in groundwater causes **dental and skeletal fluorosis**, and the affected belt is one of India's worst.

Gundlakamma — the receiving basin

- The **Gundlakamma** is a **seasonal river** rising in the **Nallamala hills**, an offshoot of the Eastern Ghats, near **Ardhaveedu in Markapuram district** at about **425 m** elevation.
- It flows north-east, enters the plains near **Cumbum**, passes **Markapur** and **Addanki**, and enters the Bay of Bengal about **19 km east of Ongole** after **225 km** — the **largest of the rivers rising in the Nallamalas**.
- **Cumbum lake**, built by the **Gajapati kings in the 15th century**, is an earthen dam about **57 feet** high — among the oldest surviving irrigation works in the region.
- The modern **Gundlakamma Reservoir Project** at Mallavaram, Prakasam district, is about **80 feet** high, can irrigate **80,600 acres** and supplies drinking water to about **2.5 lakh people** in and around Ongole.

■ From Mineral Wealth to Manufacturing Power

In News: Andhra Pradesh is executing a strategic shift from **extracting and selling raw minerals to processing and manufacturing within the State**, moving up the value chain.

Gold

- **Swarnagiri Gold Mines** near Jonnagiri, Kurnool district, operated by **Geomysore Services India Pvt. Ltd.**, commenced production in **July 2026**, with expected output of about **1,000 kg of gold annually**.
- Locally produced **50-gram to 500-gram, 999/24-carat gold bars** are branded '**Made in Andhra / Made in Jonnagiri**'.
- The **Boksampalli, Javakula, Chigurugunta and Ramagiri belts** of Anantapur and Chittoor districts are to be auctioned shortly.

Coal gasification, titanium and critical minerals

- **Reliance Industries** has proposed an **underground coal-gasification project** near Recherla and Chintalapudi in **Eluru district** with investment of over **₹2 lakh crore**, yielding **hydrogen, ammonia, urea, methanol, synthetic natural gas and liquid fuels**.
- **Underground coal gasification (UCG)** converts coal into gas **in situ** without mining it, by injecting oxidants into the seam — useful for deep or uneconomic seams, though it carries groundwater contamination risk.
- **Adani Group** has proposed a **₹16,000 crore beach sand project** in **Srikakulam** for titanium extraction and value-added manufacturing. **Beach sand minerals** include **ilmenite, rutile, monazite, zircon, garnet and sillimanite**; monazite contains thorium and is therefore reserved for the Department of Atomic Energy.
- The **National Geophysical Research Institute (NGRI, Hyderabad)** identified traces of **lithium and gallium** at **Tummalapalle, Kadapa district** — already known for uranium. An MoU with NGRI and **IIT Dhanbad** will explore lithium batteries and semiconductor components.
- **Gallium** is a critical mineral used in **gallium nitride and gallium arsenide semiconductors**, LEDs and 5G devices; China dominates global supply.

Steel

- **ArcelorMittal Nippon Steel (AM/NS India)** is developing an **8.2-million-tonne plant** at **Rajayyapeta** near Anakapalli.
- **JSW Steel** is setting up a **2-million-tonne facility** in **Kadapa**.
- India is the **world's second-largest crude steel producer** after China; the **National Steel Policy, 2017** targets **300 million tonnes** of capacity by 2030-31.

■ Andhra Pradesh as India's Third Subsea Cable Gateway

In News: Driven by a massive datacentre buildout, the Andhra Pradesh coastline will host new **landing stations for submarine cables**, making it **India's third international subsea gateway after Mumbai and Chennai**.

Projects and consortia

- **Microsoft** is participating in a consortium to land the **3,600 km India–Southeast Asia (I-2SEA) Submarine Cable System**, ready for service in **Q4 2029**.
- **Google** is developing the globe-spanning **America–India Connect** system, which will land at **Visakhapatnam**, where its datacentre complex is being built.
- A **submarine cable landing station** is the shore facility where an undersea fibre cable terminates and connects to the terrestrial network; it needs secure power, cooling and a protected beach manhole.

Why it matters

- **Over 95% of international data traffic** moves through submarine cables, not satellites — they are **critical infrastructure**.
- Most existing cables on India's east coast are **8 to 15 years old**, filled to capacity and approaching end of life.
- **Geopolitical de-risking:** tensions in West Asia are pushing traffic towards India's eastern seaboard for resilience, since most India-bound cables land on the west coast and transit the Red Sea.

- Visakhapatnam will link India directly with **Southeast Asia, Australia, West Asia and Europe**, strengthening its case as a datacentre and digital services hub.

■ Power Sector — Thermal Addition, Rooftop Solar and the Energy Exchange

In News: The AP Electricity Regulatory Commission (APERC) granted in-principle approval to procure **1,600 MW** of coal-based thermal power, while the State climbed to the **top four nationally in rooftop solar**.

Thermal capacity addition

- Two units of **800 MW each**, at an estimated cost of up to **₹25,000 crore**, on a **Design, Build, Finance, Own and Operate (DBFOO)** basis.
- Procurement through **tariff-based competitive bidding under Section 63 of the Electricity Act, 2003** — under which the regulator adopts the tariff discovered through transparent bidding rather than fixing it.
- Rationale: rising peak demand; the **impending mandatory closure of thermal units older than 25 years by 2030**; and the need for **firm, dispatchable power** when renewable generation is low.
- **Supercritical units (above 660 MW)** are being encouraged — they operate above water's critical pressure, giving higher efficiency and a lower carbon footprint per unit.
- The **Central Electricity Authority's Resource Adequacy Plan** recommends a phased addition of **5,588 MW by 2035-36** for the State.

Rooftop solar and demand

- **APSPDCL** became the first DISCOM in the State to connect **50,000 services** under rooftop solar; AP stands **4th nationally**. Statewide installations total **4,11,915 systems**.
- Under the **Utility Led Aggregation (ULA)** route the target is **5,99,105 systems (1,198.21 MW)** for SC and ST consumers.
- **PM Surya Ghar Muft Bijli Yojana (February 2024, MNRE)** targets **1 crore households**, with central financial assistance of up to **60% for 2 kW** and **40% for the third kW**.
- Peak demand touched **15,016 MW on 21 May 2026**; generation rose from **77,640.55 MU (2024-25)** to **79,684.96 MU (2025-26)**; AP-Transco cut transmission losses to **2.6%**.

Indian Energy Exchange

- **IXE**, established in **2008** with headquarters at **New Delhi**, is **India's first and largest automated power exchange**, regulated by the **Central Electricity Regulatory Commission (CERC)**.
- It facilitates short-term trading through the **Day-Ahead Market (DAM)**, **Term-Ahead Market (TAM)**, **Renewable Energy certificates** and **Energy Saving Certificates (ESCerts)**.
- A power exchange enables **market-based price discovery**, letting industries optimise procurement instead of relying solely on long-term DISCOM tariffs.

■ Kharif 2026 — A 51% Rainfall Deficit and the Four-Pronged Response

In News: Andhra Pradesh registered a **51.2% rainfall deficit between 1 June and 25 August 2026**, with all **28 districts in deficit**, turning the Kharif season into a financial survival test for farmers.

The deficit and why it happened

- Statewide deficit **51.2%** against a national deficit of about **13%**; highest deficits in **Annamayya (75.9%)**, **Prakasam (67.5%)** and **Chittoor (65%)**.
- **Seven low-pressure systems** formed during the first three monsoon months, but **all formed in the head of the Bay of Bengal** near Odisha, West Bengal and Bangladesh rather than off Andhra Pradesh.
- **El Niño-driven large-scale subsidence** caused air to sink over the region, suppressing cloud formation and confining rainfall to isolated pockets.
- Kharif sowing covered only about **18.9 lakh hectares by 19 August** — **61% of the normal 30.84 lakh hectare target**. **Groundnut was worst hit at 34%** of normal area; paddy 62%, maize 61%, pulses 70%, cotton 75%.

The four-pronged strategy

- **Irrigated areas** — advanced crop calendars and optimised water use.

- **Water-scarce regions** — shift from water-intensive paddy to **drought-resilient crops**.
- **Sustainable practices** — expanded natural farming, **pre-monsoon dry sowing** and **seed pelleting**, covering **18.20 lakh acres**. Seed pelleting coats seed with nutrients and protectants to improve germination in dry soil.
- **Resource and risk management** — farm ponds, moisture conservation, crop diversification and fodder security. **Crop insurance coverage was expanded from 7.83 lakh hectares (Kharif 2025) to 16.39 lakh hectares**.

The tenant farmer problem

- **Tenant farmers lack recognised documents proving cultivation rights**, so they cannot access institutional credit, crop insurance or government compensation.
- Emergency spending is financed through **informal loans at 2% to 3% monthly interest**.
- Delayed canal releases force reliance on **diesel pumps**, adding roughly **₹15,000** to a tenant farmer's seasonal burden; in West Godavari, crop rot forced re-transplantation costing about **₹6,000 per acre**.
- The **Andhra Pradesh Crop Cultivator Rights Act, 2019** provides for Crop Cultivator Rights Cards, but coverage remains limited — the standard illustration of why tenancy recognition matters.
- Under the '**Rythanna Meekosam**' campaign, multidisciplinary teams surveyed **96.91% of the targeted 2.74 crore plots** across **18,513 villages** at parcel level.

■ Great Green Wall of Andhra Pradesh — Palmyra Groves Along the Coast

In News: The Forest Department launched a **palmyra seed collection and plantation drive across 5,499 hectares** as the second tier of the **Great Green Wall of Andhra Pradesh**.

The three-tier coastal shield

- **First tier — mangrove forests**, planted with hypersalinity-tolerant species such as **Avicennia marina**, which absorb tidal energy and blunt storm surges.
- **Second tier — palmyra groves**, acting as a natural windbreak against cyclones; along with **casuarina, palm and pandanus** along canal bunds and roadsides as salinity and wind barriers.
- **Third tier — a broader community buffer** of inland agroforestry, sand dune stabilisation using soil-binding species such as **Spinifex litoris**, and community plantations supporting livelihoods and eco-tourism.
- **Targets: 55 lakh palmyra seeds; 13 lakh collected** this fruiting season and **1.65 lakh already planted** with Panchayat Raj, Revenue, school and community support.

The programme

- A **5-km-wide, multi-layered living ecological shield** along the State's **1,053 km coastline** — the **second longest in India after Gujarat** — to be in place **by 2030**.
- It spans **Srikakulam to Tirupati**, protecting over **33 lakh vulnerable coastal residents**; **coastal erosion affects about 32% of the shoreline**.
- Goal: raise green cover from about **30% to 50% by 2047**, with an interim target of **37% by 2030**.
- Financed through convergence of **MGNREGS, CAMPA, the Green Credit Programme** and international climate finance. **CAMPA** holds funds paid in lieu of forest land diverted for non-forest use, under the **Compensatory Afforestation Fund Act, 2016**.
- Adapted from **Africa's Great Green Wall**, an African Union initiative to build a mosaic of restored land across the Sahel.

■ Green Cover Drive — the Green Executive Committee, Industry Partnership and Miyawaki Forests

In News: The **Andhra Pradesh Green Executive Committee** set a target of **50% green cover by 2047**, against the current **22.96%**, and industries were made partners in the effort.