

28/05/2026 Daily Current News

1. *Scheme for Assistance in Ration Transport and Handling-Income with Automation in PDS (SARTHAK PDS):*

Context: Cabinet approves Integration and Continuation of two schemes viz. (i) “Assistance to State Agencies for intra-State movement of foodgrains and FPS dealers’ margin under NFSA” and (ii) “Scheme for Modernization and Reforms through Technology in Public Distribution System (SMART PDS)” under umbrella scheme SARTHAK-PDS

About SARTHAK-PDS:

- ❖ The Cabinet Committee on Economic Affairs (CCEA), chaired by Narendra Modi, approved continuation of the SARTHAK-PDS scheme during the 16th Finance Commission period.
- ❖ SARTHAK-PDS stands for “Scheme for Assistance in Ration Transport and Handling-Income with Automation in PDS”.
- ❖ The scheme has a Central outlay of ₹25,530 crore and will continue till 31 March 2031.
- ❖ SARTHAK-PDS is an umbrella scheme merging assistance for intra-State foodgrain movement and SMART PDS technology reforms.
- ❖ The scheme aims to strengthen implementation of the National Food Security Act, 2013 through efficient and transparent PDS operations.
- ❖ The scheme provides Central financial assistance for intra-state foodgrain transport, handling and FPS dealer margins.
- ❖ SARTHAK-PDS seeks to create a citizen-centric, interoperable and intelligent Public Distribution System (PDS).
- ❖ The scheme will use technologies like Artificial Intelligence (AI), Machine Learning (ML), Natural Language Processing (NLP) and Blockchain in PDS operations.
- ❖ The scheme includes unified databases, real-time monitoring systems, AI-based grievance redressal and State Command Control Centres.
- ❖ SARTHAK-PDS aims to minimize leakages and improve last-mile delivery of foodgrains.
- ❖ The scheme supports food and nutritional security for 81.35 crore beneficiaries covered under NFSA.
- ❖ Earlier reforms under PDS include End-to-End Computerization of TPDS, IM-PDS and SMART PDS initiatives.
- ❖ Citizen-centric applications under PDS reforms include Mera Ration, Anna Mitra, Rightful Targeting Dashboard and Anna Sahayata.
- ❖ Since April 2023, SMART PDS has enabled Aadhaar seeding, e-PoS automation and computerized supply-chain management across 36 States/UTs.

2. *National Health Accounts (NHA) estimates for India 2022-23:*

Context: The Union Health Ministry released the National Health Accounts (NHA) estimates for India 2022-23. The NHA 2022-23 is the tenth report on health expenditure estimates prepared by the National Health Accounts Technical Secretariat (NHATS), National Health Systems Resource Centre, Ministry of Health and Family Welfare, using the System of Health Accounts (2011) framework.

Major details:

- ❖ Government Health Expenditure (GHE) as a share of GDP increased from 1.15% in 2013–14 to 1.43% in 2022–23.
- ❖ As per the new GDP series with base year 2022–23, GHE as a percentage of GDP is 1.48%.
- ❖ GHE's share in General Government Expenditure (GGE) increased from 3.78% in 2013–14 to 4.89% in 2022–23.
- ❖ Per capita Government Health Expenditure increased nearly 2.7 times from ₹1,042 to ₹2,786 between 2013–14 and 2022–23.
- ❖ Increased public health expenditure has contributed to a reduction in Out-of-Pocket Expenditure (OOPE) by citizens.
- ❖ During the COVID-19 pandemic, government health expenditure rose significantly to 1.84% of GDP in 2021–22.
- ❖ Increased spending during the pandemic included Emergency COVID Response Package (ECRP)-I & II and the mass COVID vaccination programme.
- ❖ India implemented one of the world's largest COVID vaccination programmes during the pandemic.
- ❖ Due to higher government spending, OOPE as a share of Total Health Expenditure (THE) declined to 39.4% during the pandemic period.
- ❖ The share of GHE in Total Health Expenditure (THE) increased from 28.6% in 2013–14 to 43.7% in 2022–23.
- ❖ The rise in public financing reflects greater prioritization of healthcare in government spending.
- ❖ Increased government health expenditure aims to make healthcare more affordable, equitable and accessible.

3. *First Indigenous Hydrogen Train:*

Context: In a major step towards green and sustainable transportation, Indian Railways has approved the introduction of a 10-car Hydrogen Fuel Cell-based trainset on the dedicated Jind-Sonipat section of Northern Railway. The trainset is all set to start soon and will operate at a maximum speed of 75 kmph, powered by a 1200 KW hydrogen fuel cell propulsion system.

More details:

- ❖ The Jind–Sonipat section in Haryana has been selected as the pilot route for hydrogen train operations.
- ❖ An indigenous hydrogen storage and refuelling facility has been established at Jind for the hydrogen train-set.
- ❖ The Petroleum and Explosives Safety Organisation (PESO) has granted the licence for storage and dispensing of compressed hydrogen gas.
- ❖ A hydrogen compression system has been installed for refuelling operations.
- ❖ Necessary technical support and critical spare parts are being provided for reliable and fail-safe functioning.
- ❖ A standby compressor unit is also being arranged to ensure uninterrupted operations.
- ❖ Safety systems include hydrogen leak detectors and flame detectors at the production, storage and dispensing facility.

INDIAN RAILWAYS TAKES A GREEN LEAP FORWARD

INTRODUCING INDIA'S FIRST HYDROGEN FUEL CELL TRAIN



GLOBAL STEP TOWARDS A SUSTAINABLE FUTURE

Hydrogen-based rail systems are increasingly being recognised globally as a promising solution for sustainable mobility.

With this initiative, India joins a select group of countries exploring the use of hydrogen for cleaner rail transportation.


Germany


Japan

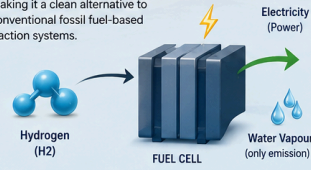

China


United States


India

HOW HYDROGEN FUEL CELL WORKS

Hydrogen fuel cell technology generates electricity through a chemical reaction using hydrogen, with water vapour as the only emission, making it a clean alternative to conventional fossil fuel-based traction systems.



PILOT ROUTE & INFRASTRUCTURE

The Jind-Sonapat section in Haryana has been identified as the pilot route for these operations.

 Indigenous hydrogen storage and refuelling facility set up at Jind.

 PESO (Petroleum and Explosives Safety Organisation) has granted the required licence for storage and dispensing of compressed hydrogen gas at the site.



SAFETY & RELIABILITY ASSURED

 Hydrogen compression system provided for refuelling operations with necessary technical support and critical spares.

 Provision of a standby compressor unit ensured.

 Various safety sensors, including hydrogen leak detectors and flame detectors installed at the hydrogen production, storage and dispensing facility.

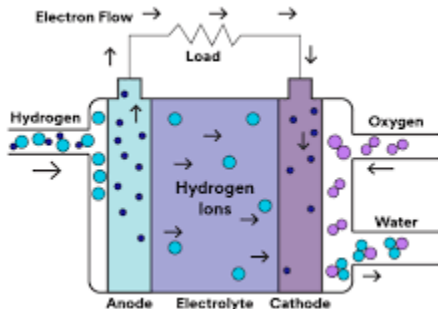
 Regular inspection and cleaning of sensors to prevent dust accumulation and ensure safe operation.

CLEANER RAILS. GREENER FUTURE. STRONGER INDIA.

POWERED BY HYDROGEN. DRIVEN BY INNOVATION.

- ❖ Regular inspection and cleaning of safety sensors will be carried out to prevent dust accumulation and ensure safe functioning.
- ❖ Operation and maintenance manuals for the hydrogen train-set and hydrogen plant have been approved by Research Designs and Standards Organisation (RDSO).
- ❖ Safety provisions, regular audits and standard operating procedures are being implemented at the proposed maintenance facility in Shakurbasti.
- ❖ With this initiative, India joins a select group of countries such as Germany, Japan, China and the United States that are exploring the use of hydrogen for cleaner rail transportation.
- ❖ As the technology is still at a nascent stage, only a limited number of countries are currently operating or testing such systems.

About Hydrogen fuel cell technology:



- ❖ Hydrogen fuel cell technology generates electricity through a chemical reaction using hydrogen fuel.
- ❖ Water vapour is the only emission from hydrogen fuel cells, making them a clean energy

source.

- ❖ Hydrogen fuel cell technology is considered a clean alternative to fossil fuel-based traction systems.
- ❖ Hydrogen-based rail systems are emerging globally as a sustainable mobility solution.
- ❖ Hydrogen fuel cells provide clean, reliable, quiet and efficient electric power.
- ❖ The technology works through an electrochemical process that converts hydrogen into electricity.
- ❖ Water and heat are the only by-products produced during the process.
- ❖ Hydrogen is one of the most abundant elements available on Earth.
- ❖ Hydrogen fuel is being promoted as an environmentally friendly alternative energy source.

4. *VERVE-102*:

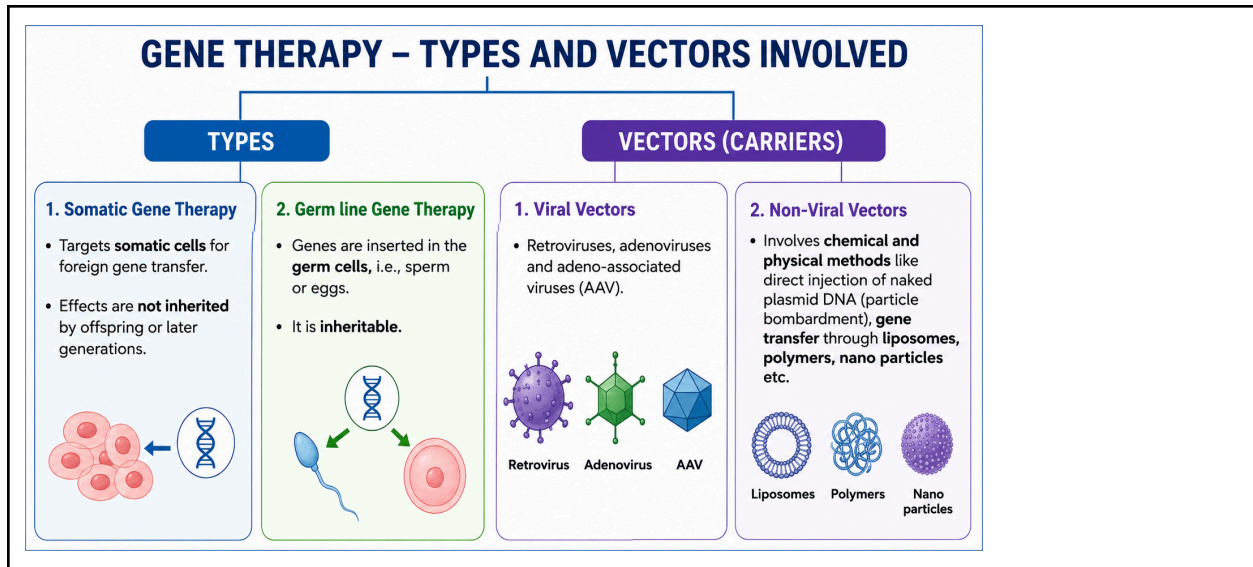
Context: The experimental therapy called VERVE-102 reduced harmful LDL (low-density lipoprotein) cholesterol by up to 62% in patients with inherited high cholesterol and early heart disease.

About VERVE-102:

- ❖ VERVE-102 is an investigational in vivo base editing medicine designed to edit genes directly inside the human body.
- ❖ Base editing is a type of genome editing that changes a single DNA base into another base without cutting the DNA completely.
- ❖ VERVE-102 uses messenger RNA (mRNA) to produce an adenine base editor inside cells.
- ❖ The medicine also contains a guide RNA (gRNA) that directs the editor to the PCSK9 gene.
- ❖ The PCSK9 gene produces a liver enzyme that regulates cholesterol levels in the blood.
- ❖ Messenger RNA (mRNA) carries genetic instructions that tell cells to make specific proteins using the body's natural cellular machinery.

About Gene therapy:

- ❖ It is a technique that uses a gene(s) to treat, prevent or cure a disease or medical disorder.
- ❖ It works by adding new copies of a gene that is broken, or by replacing a defective or missing gene in a patient's cells with a healthy version of that gene.



5. *Battery Energy Storage System (BESS):*

Context: Adani Green Energy Ltd (AGEL) commissioned Battery Energy Storage System (BESS) at Khavda, Gujarat. It is the world's largest single-location battery storage deployment outside China with a capacity of 3.37 Gigawatt-hour (GWh).

About Battery Energy Storage System (BESS):

- ❖ Battery Energy Storage System (BESS) is an electrochemical system that stores excess electrical energy for later use.
- ❖ BESS provides flexibility in grid connectivity and can operate independently in local mode during grid failure.
- ❖ BESS is important for reliable integration of renewable energy into the power system.
- ❖ The Central Electricity Authority estimates that about 336 GWh of energy storage capacity will be required by 2029–30.
- ❖ Traditional solid rechargeable batteries store energy in solid metal electrodes.
- ❖ Examples of traditional rechargeable batteries include Lead-Acid, Lithium-Ion and Zinc-Air batteries.
- ❖ Flow batteries store energy in liquid electrolytes kept separately in storage tanks.
- ❖ Examples of flow batteries include Vanadium Redox Flow, Zinc-Iron and Zinc-Bromine batteries.

Quick Bites:

- ☐ The main celebration of the International Day of Yoga (IDY) 2026 will be held in Kolkata, with the theme for this year's observance is "Yoga for Healthy Ageing", highlighting the role of Yoga in promoting physical health, mental well-being and healthy ageing.
- ☐ The Union Minister for the Development of North Eastern Region (MDoNER), Shri Jyotiraditya M. Scindia, launched the "Mission Queen Pineapple", a ₹236 crore convergence-led initiative for pineapple cultivation and value chain development in the State of Tripura. The Mission is

designed as a three-year implementation roadmap from Q2 FY2026 to Q4 FY2028 for promoting Tripura's Unique Selling Proposition (USP) — the GI-tagged Queen Pineapple.

- ☐ Recently a study identified Bihar and West Bengal as major aerosol pollution hotspots. Aerosols are small microscopic solid or liquid particles that float in the air. They are emitted by both natural events and human activities.
- ☐ US strikes near Strait of Hormuz in Iran's Southern Hormozgan raise ceasefire tensions. Hormozgan Province is a southern province of Iran located along the Persian Gulf and Gulf of Oman. Its capital is Bandar Abbas, situated on the northern coast of the strategically important Strait of Hormuz, one of the world's major oil trade routes and a key global energy chokepoint.
- ☐ Recently, the Finance Minister reiterated India's target of achieving \$100 billion in textile exports and \$250 billion in textile production by 2030 during the TEXPROCIL Export Awards 2023–24 ceremony. The Cotton Textiles Export Promotion Council (TEXPROCIL) was established in 1954 as the first export promotion council set up by the Government of India after Independence. Headquartered in Mumbai, it functions under the Ministry of Textiles as a government-sponsored, autonomous and non-profit organization promoting cotton textile exports from India.
- ☐ Vaccinium piliferum, a rare wild relative of the blueberry, was rediscovered in the forests of Vijoynagar in Changlang district, Arunachal Pradesh, after 188 years.
- ☐ India ranked second after China in the Asia Pacific region in operational data centre capacity as of 27 May 2026, with 1.6 GW of live capacity. India also placed among the top three global markets by development pipeline, with 3.1 GW of capacity under construction and planned.
- ☐ Andhra Pradesh has directed the implementation of a "Farm to Home" model for direct delivery of agricultural produce from farmers to consumers.
- ☐ Three-time World championship medallist Esha Singh bossed the women's 25m pistol final with a World record score of 43 as she clinched the gold to open India's medal count on the second day of the ISSF World Cup held in Munich, Germany.
- ☐ The Ministry of Defence on Wednesday issued the Request for Proposal (RFP) for the indigenous fifth-generation Advanced Medium Combat Aircraft (AMCA) programme to three shortlisted bidders, marking a major step forward in India's push for self-reliance in advanced combat aviation. The shortlisted entities include the Larsen and Toubro-Bharat Electronics Limited combine, Tata Advanced Systems, and the Bharat Forge-BEML consortium.
- ☐ A task force under the Department of Science and Technology, chaired by Rajkumar Upadhyay with co-chair Manindra Agrawal, has recommended a phased national transition to post-quantum cryptography (PQC) for critical sectors like defence, banking, telecom, power and governance. Formed under the National Quantum Mission, the panel warned that future quantum computers could break current encryption systems and compromise sensitive data. It has proposed a migration roadmap for Critical Information Infrastructure, targeting foundational readiness by 2027 and full PQC adoption by 2029 to ensure quantum-resilient digital security.

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