

22/05/2026 Daily Current News

1. *UMMID (Unique Methods of Management of Inherited Disorders) Programme:*

Context: Dr. Jitendra Singh Dedicates UMMID Programme to the Nation; Says Genomic and Precision Medicine Will Shape the Future of Healthcare.

About UMMID (Unique Methods of Management of Inherited Disorders) Programme:

- ❖ UMMID initiative aims to use advanced scientific technology and molecular medicine through government hospitals to achieve Universal Health Coverage.
- ❖ The programme is based on the principle of “Prevention is better than Cure.”
- ❖ Congenital malformations and genetic disorders are the third leading cause of newborn mortality in urban India.
- ❖ High population, high birth rate, and consanguineous marriages contribute to the high prevalence of genetic disorders in India.
- ❖ UMMID seeks to establish NIDAN Kendras for counselling, prenatal testing, diagnosis, and multidisciplinary care in government hospitals.
- ❖ The initiative focuses on producing skilled clinicians in Human Genetics.
- ❖ It aims to screen pregnant women and newborns for inherited genetic diseases in aspirational districts.
- ❖ The programme promotes awareness about genetic disorders among clinicians and strengthens molecular diagnostics in hospitals.
- ❖ UMMID aims to shift healthcare focus from “sick-care” to preventive “wellness” care.

2. *World Cities Report 2026:*

Context: World Cities Report 2026 Released by UN-Habitat titled “The Global Housing Crisis Pathways to Action”.

Highlights of the report:

- ❖ Global Housing Crisis: Around 3.4 billion people worldwide lack access to adequate housing.
- ❖ Homelessness in India: India records a homelessness rate of 13 per 10,000 people as per the Institute of Global Homelessness.
- ❖ Climate Threat to Housing: Climate-related hazards are projected to destroy nearly 167 million homes by 2040.
- ❖ Housing and Emissions: Housing sector contributes about 17–21% of total global emissions.
- ❖ Weak Housing Policies: Many national housing policies fail to address affordability, tenure security, accessibility, and other adequacy dimensions.
- ❖ Rising Housing Prices: Global price-to-income ratios increased from 9.5 (2010) to 11.7 (2023), making housing less affordable.
- ❖ India’s Urban Housing Costs: Mumbai and Delhi have high price-to-income ratios of 14.3 and 10.1 respectively.

3. Ease of Doing Research & Development in India:

Context: Ease of Doing Research & Development in India Report Released by NITI Aayog.

Major highlights:

- ❖ Low R&D Spending: India's Gross Expenditure on Research and Development (GERD) is about 0.65% of GDP, far below the USA, China, and South Korea.
- ❖ Shortage of Researchers: India has only 262 Full-Time Equivalent (FTE) researchers per million people, much lower than the USA and China as per the Global Innovation Index 2025.
- ❖ Dependence on Public Funding: Around 64% of India's R&D funding comes from the government, unlike advanced economies where the private sector contributes nearly 60%.
- ❖ Human Resource Challenges: Delays in scholarship disbursement and weak incentives discourage researchers and innovation.
- ❖ Poor Technology Commercialization: Limited institutions like Council of Scientific and Industrial Research labs have Independent Business Divisions to translate research into products.
- ❖ Weak State-Level R&D Ecosystem: State institutions face inadequate funding, poor infrastructure, and heavy affiliation burdens on faculty.
- ❖ Increase R&D Investment: The report recommends raising GERD to at least 2% of GDP within the next 4–5 years.
- ❖ Unified Fellowship System: Creation of 'Vigyan Nidhi' is suggested to streamline fellowship funding and reduce delays.
- ❖ State-Level Innovation Clusters: The report proposes RDI clusters integrating HEIs, R&D institutions, MSMEs, PSUs, and industries.
- ❖ Science Policy Institution: Establishment of a National Institute for Science Policy and Governance (NISPG), similar to South Korea's STEPI and Japan's NISTEP, is recommended.

4. Dollar-Rupee Swap:

Context: RBI announced a \$5 billion dollar-rupee swap auction for a tenor of three years to inject liquidity.

About Dollar-Rupee Swap:

- ❖ Nature of the Swap: The arrangement is a simple buy/sell foreign exchange swap conducted by the Reserve Bank of India.
- ❖ Swap Mechanism: Banks sell US dollars to the RBI and simultaneously agree to repurchase the same amount at the end of the swap period.
- ❖ Dollar-Rupee Swap: It is a forex liquidity management tool involving the exchange of US dollars and Indian rupees with a future reversal agreement.
- ❖ Liquidity Management: The swap helps the RBI inject or absorb rupee liquidity in the banking system.
- ❖ Forex Market Stability: It is used to stabilize foreign exchange markets and manage exchange rate volatility.
- ❖ Policy Objective: Dollar-Rupee swaps support smooth functioning of currency markets and overall financial stability.

5. *Environmental Control and Life Support System (ECLSS):*

Context: The Environmental Control and Life Support System (ECLSS) for the Gaganyaan mission is an indigenous system developed by the Indian Space Research Organisation (ISRO). It replicates Earth's atmospheric conditions, manages air revitalization, and ensures astronaut survival within the crew module during the mission's 400 km orbit.

More details:

- ❖ **Carbon Dioxide Removal:** Indian Space Research Organisation's Gaganyaan uses lithium hydroxide canisters and activated charcoal to remove carbon dioxide and cabin odours.
- ❖ **Air Revitalisation System:** The ARS supplies oxygen, removes contaminants and circulates air using fans in microgravity conditions.
- ❖ **Oxygen Requirement:** Each astronaut requires about 0.84 kg oxygen per day for metabolic activities.
- ❖ **Temperature & Humidity Control:** Cabin temperature is maintained between 20–26°C and humidity between 30–70% for crew comfort and equipment safety.
- ❖ **Cooling & Condensation:** Heat exchangers remove excess heat while condensing units collect moisture to prevent fogging and short-circuits.
- ❖ **Pressure Maintenance:** Cabin pressure is maintained at 101.3 kPa using sensors and safety valves to simulate Earth-like conditions.
- ❖ **Water Management:** Drinking water is stored in pressurised pouches and squeezed directly into the mouth in microgravity.
- ❖ **Waste Management:** Suction-based systems collect urine and solid waste, which is chemically treated and stored safely.
- ❖ **Fire Safety:** Smoke detectors and fine water mist extinguishers are used to detect and suppress fires in microgravity.

About Gaganyaan Mission:

- ❖ It is India's ongoing project to send a 3-day manned mission to the Low Earth Orbit (LEO) with a crew of 4 members and bring them safely back to Earth.
- ❖ It will circle Earth at a low-earth-orbit at an altitude of 300-400 km from earth for 5-7 days.
- ❖ Its immediate aim is to demonstrate indigenous capability to undertake human space flights.
- ❖ Launch Vehicle Mark 3 (LVM-3): It is a 3-stage space launch vehicle operated by the ISRO to launch satellites and other space objects into Geosynchronous Transfer Orbits.
- ❖ The third stage of this vehicle uses a Cryogenic engine, which uses liquefied oxygen and hydrogen as fuel.
- ❖ It has been designed for launching communication satellites.
- ❖ GSLV delivers satellites into a higher elliptical orbit - GTO.

Quick Bites:

- ☐ The Ministry of Education, Government of India, in association with the Indian Venture and Alternate Capital Association (IVCA), convened the Bharat Innovates Investor Showcase in Bengaluru on 19 May 2026. The Showcase brought together 24 high-potential Indian DeepTech start-ups from the Bharat Innovates selected cohort, curated by a committee of leading investors.
- ☐ During Indian Prime Minister's official visit to Italy, India and Italy deepened cooperation in elevated bilateral ties from a Strategic Partnership to a Special Strategic Partnership.
- ☐ Tata Electronics' semiconductor assembly and test facility is located at Jagiroad in Morigaon district of Assam. Prime Minister Narendra Modi virtually inaugurated the commencement of the greenfield project on 13 March 2024. The project involves an investment of ₹27,000 crore, or about USD 3.6 billion.
- ☐ The National Commodities and Derivatives Exchange (NCDEX) announced RAINMUMBAI on 20 May 2026 as India's first SEBI-approved exchange-traded weather derivatives contract. The contract is a cash-settled futures instrument linked to rainfall data for Mumbai during the monsoon months of June to September. Weather derivatives are financial contracts that derive value from weather variables such as rainfall, temperature, snowfall, or wind speed. They are used in commodity and financial markets to manage weather-linked price and revenue risk.
- ☐ Defence Minister Rajnath Singh and the Republic of Korea's Minister of Patriots and Veterans Affairs Kwon Oh-eul jointly inaugurated the Indian War Memorial at Imjingak Park in Seoul on Wednesday, commemorating the 75th anniversary of the Korean War and honouring the contribution of Indian troops during the conflict.

-----The END-----