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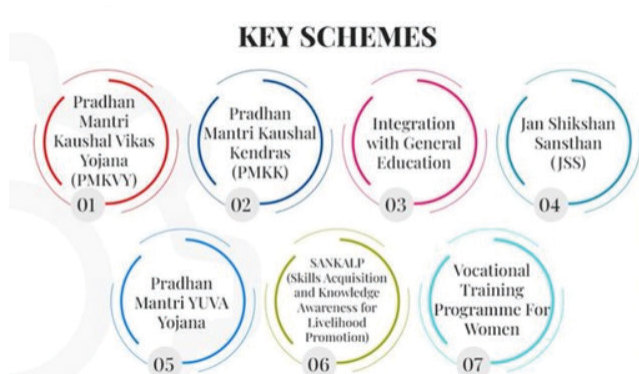
RETHINKING INDIA'S SKILLING OUTCOMES

Context

- Over the last decade, India has built one of the **largest skilling ecosystems** in the world, yet skilling has not become a first-choice pathway for most young Indians.

About

- The India Skills Report 2025 shows that only about **2% of graduates pursue additional skilling certifications** after completing degrees.
- Between 2015 and 2025**, India's flagship skilling programme, Pradhan Mantri Kaushal Vikas Yojana (PMKVY), has trained and certified around 1.40 crore candidates, reflecting serious public investment and policy intent.



- PLFS data show that** wage gains from vocational training are modest and inconsistent, offering limited recognition for certified skills and little visible improvement in quality of life.
 - In contrast, vocational participation exceeds 70% in Germany and Japan and crosses 90% in South Korea (OECD).

Reasons for not Preferring Skilling

- Legitimacy of Degrees:** Degrees indicate long-term mobility, social recognition, and economic credibility.
 - Skilling does not lead to recognised qualifications and progressive employment thus, participation becomes unaspirational.
- Limited reliance on public certifications:** Most employers do not treat government skilling certifications as credible hiring benchmarks, preferring internal training systems, referrals, or private platforms.
- Uneven impact of apprenticeships:** While the National Apprenticeship Promotion Scheme (NAPS) has expanded industry participation, benefits are concentrated among large firms, with MSMEs remaining marginal.

- Demand–supply mismatch persists:** Skilling remains something industry consumes rather than co-designs, resulting in training that often lags behind evolving labour-market needs.

Key Challenges in the Ecosystem

- Sector skill councils:** SSCs are industry-led bodies under the National Skill Development Corporation (NSDC), mandated to define skill standards, ensure industry relevance, and enhance employability; however, this mandate has not been fully realised.
 - Certifications from AWS, Google Cloud, or Microsoft work because the certifier's credibility is at stake.
 - Until SSCs are held accountable for employability, certification will remain symbolic rather than economic.
- Responsibility is Fragmented:** Unlike Higher Education or Technical Institutions where reputational risk enforces accountability, the skilling system diffuses responsibility without consequence which has eroded trust.
- Weak industry role in curriculum design:** Industry faces neither strong incentives nor binding obligations to participate in curriculum development, certification standards, or assessment frameworks.
 - Without deeper industry ownership, skilling programmes struggle to remain relevant, credible, and scalable.

Way Ahead

- Workplace-embedded skilling as a fast lever:** Expanding NAPS and deepening industry integration can rapidly improve job readiness by shifting skill acquisition into real work environments.
- Integrating skills with formal education:** Embedding skills within degree and diploma pathways enhances credibility, aspiration, and labour-market alignment.
- Industry as co-owner, not end-user:** Treating industry as a co-designer and co-owner of skilling programmes ensures curriculum relevance and hiring alignment.
- Outcome accountability for SSCs:** Making Sector Skill Councils answerable for placement and employability outcomes can restore certification credibility.

Conclusion

- India's Gross Enrolment Ratio (GER)** stands at 28%, but the National Education Policy 2020 aims for it to touch the **50% mark by 2035**.

- For skilling to scale credibly and inclusively, it **must be integrated with formal education systems**, not run parallel to them.
- Industry-linked, education-embedded skill is essential for **converting India's demographic strength** into sustained economic growth and productivity gains.

Source: TH

CAG FLAGS STATES' FISCAL STRESS

Context

- According to the Comptroller and Auditor General of India (CAG), India's states began **FY24** with **robust revenue inflows** but closed the year facing **increasing fiscal strain**.

Major Findings

- **Total revenue receipts of states** were at 37.93 lakh crore in FY24.
 - ♦ **States' own tax revenue formed the largest component** at about 50%, followed by the share in Union taxes at nearly 30%, grants-in-aid at around 12% and non-tax revenue at just over 8%.
 - ♦ Over the past decade, the share of own tax revenue and tax devolution has steadily increased, while dependence on grants has declined.
- **Disparities Among States:** States such as Haryana, Maharashtra, Karnataka, Telangana, Tamil Nadu and Gujarat derived more than 60% of their revenue from their own taxes, while several northeastern and hill states, along with Bihar, remained heavily dependent on central transfers.
- **Rigidity in State Budgets:** Committed expenditure such as salaries, pensions and interest payments absorbed a large share of revenue expenditure, with significant variation across states.
- **GST's Role:** State GST remained the single-largest source of its own tax revenue. It accounted for about 43% of states' own tax collections.
- **Debt on States:** Public debt of states reached 67.87 lakh crore as of March 2024, equivalent to 23.42% of combined GSDP.
 - ♦ Debt levels varied sharply, ranging from below 20% of GSDP in some states to over 50% in others, highlighting uneven fiscal resilience.
- **Deficit indicators:** Revenue surplus was seen in 16 states whereas revenue deficit was visible in 12 states.
 - ♦ Sharp rise in deficits is seen in Chhattisgarh, Karnataka, Maharashtra, Rajasthan, Telangana and Uttar Pradesh.

- **Liquidity Stress:** Liquidity stress also emerged as a concern during FY24, with 16 states resorting to ways and means advances (WMA) from the Reserve Bank of India.

- ♦ Rajasthan, Andhra Pradesh and Telangana together accounted for about 62% of the total WMA and overdraft availed during the year.
- ♦ In contrast, 12 states did not avail of any WMA during FY24, reflecting wide divergence in liquidity positions across states.

Overall Assessment:

- Despite improved tax devolution and own-tax collections, **state finances remain fragile**.
- High revenue expenditure, rising committed spending, growing debt and fiscal norm breaches **constrain states' investment capacity and resilience to economic shocks**.
- The CAG has advised **harmonization and rationalization of object heads across the Union and states**, to be adopted from FY28, a reform seen as critical to improve the quality of public expenditure data.
 - ♦ **Object heads** are a component of the government's budget and accounting classification system that specify the purpose or nature of expenditure.

Components of Budget

- **There are three major components:** expenditure, receipts and deficit indicators.
- **Total Expenditure** can be **divided into capital and revenue expenditure**.
 - ♦ **Capital expenditure** is incurred with the purpose of increasing assets of a durable nature or of reducing recurring liabilities.
 - ♦ **Revenue expenditure** involves any expenditure that **does not add to assets or reduce liabilities**.
- **The receipts of the Government have three components:** revenue receipts, non-debt capital receipts and debt-creating capital receipts.
 - ♦ **Revenue receipts** involve receipts that are not associated with increase in liabilities and comprise revenue from taxes and non-tax sources.
 - ♦ **Non-debt receipts** are part of capital receipts that do not generate additional liabilities, it includes recovery of loans and proceeds from disinvestments.
 - ♦ **Debt-creating capital receipts** are ones that involve higher liabilities and future payment commitments of the Government.

- **Fiscal deficit** is the difference between total expenditure and the sum of revenue receipts and non-debt receipts.
 - ♦ It indicates how much the Government is spending in net terms.
 - ♦ **Positive fiscal deficits indicate** the amount of expenditure over and above revenue and non-debt receipts, it needs to be financed by a debt-creating capital receipt.

Source: LM

ROLE OF BIOMATERIALS IN ADVANCING SUSTAINABLE MANUFACTURING

In News

- Biomaterials are becoming a central focus in the development of materials for products as nations transition to more sustainable manufacturing methods.

Biomaterials

- Biomaterials are materials derived wholly or partly from biological sources, or engineered using biological processes, that are designed to replace or interact with conventional materials.
- They are increasingly used across sectors such as packaging, textiles, construction, and healthcare.
- **Common examples** include bioplastics made from plant sugars or starch, bio-based fibres used in textiles, and medical biomaterials such as biodegradable sutures and tissue scaffolds.
- **Categories** : Biomaterials fall into three main categories:
 - ♦ Drop-in biomaterials that match petroleum-based materials and work in existing systems
 - ♦ Drop-out biomaterials that require new processing or disposal methods,
 - ♦ Novel biomaterials that provide entirely new functions and properties.

Importance and Need

- Biomaterials help India achieve multiple objectives at once, including environmental sustainability, industrial growth, revenue generation, and improved farmer livelihoods.
- Indigenous biomaterials manufacturing can reduce dependence on fossil-based imports for plastics, chemicals, and materials.
- Agricultural feedstocks and residues can gain added value, creating new income opportunities for farmers beyond food markets.

- Biomaterials strengthen India's competitiveness as global markets shift toward low-carbon and circular products.
- Biomaterials support domestic policy goals such as waste reduction, bans on single-use plastics, and climate action initiatives.

Global Scenario

- The **EU** has moved to a single, binding Packaging and Packaging Waste Regulation (EU) 2025/40 (PPWR) that recognises that compostable packaging has demonstrable environmental benefits for specific applications.
- The **UAE** is positioning itself as a major manufacturing base via large-scale PLA investment.
 - ♦ Emirates Biotech has selected Sulzer technology for a PLA plant planned in two phases of 80,000 tonnes/year each to begin operations in 2028.
 - ♦ This would be the world's biggest PLA facility once it is fully operational.
- The **U.S. is leading in a number of transformative technologies**, securing it as a leader in biomaterials.
 - ♦ A push for biomaterials comes through its federal purchasing power through the USDA's BioPreferred program.

Present Status In India

- India's biomaterials sector, spanning bioplastics, biopolymers, and bio-derived materials, is rapidly emerging as a strategic industrial and sustainability opportunity, with the bioplastics market alone valued at around \$500 million in 2024 and forecast to grow strongly through the decade.
- Balrampur Chini Mills planned PLA plant investment in Uttar Pradesh is one of the biggest investments in India.
- Domestic innovation includes startups like Phool.co, converting temple flower waste into biomaterials and Praj Industries, who have their own demonstration-level bioplastics plant in progress.

Issues and Concerns

- India has strong potential to develop a biomaterials industry, but several challenges must be addressed.
- Limited scaling of feedstocks could create competition with food crops.
- Intensive agricultural practices may increase risks of water stress and soil degradation.

- Inadequate waste management and composting infrastructure could reduce environmental benefits.
- Fragmented policies across agriculture, environment, and industry may slow adoption.
- Delayed action could result in continued dependence on imports as other countries advance faster.

Conclusion and Way Forward

- To capitalise on the biomaterials sector, India needs to expand biomanufacturing infrastructure, improve feedstock productivity using advanced technologies, and invest in R&D and standards for both drop-in and novel biomaterials.
- Clear regulations, labelling norms, and defined end-of-life pathways are essential to build confidence.
- Government procurement, targeted incentives, and support for pilot plants and shared facilities can help reduce early investment risks.

Source :TH

- **Empire:** Stretched from Central Asia and Afghanistan to Punjab, Kashmir, Gangetic plains, and parts of Central India
 - ♦ **Kanishka I** was the greatest Kushan ruler, whose empire extended from Central Asia, Afghanistan, Kashmir, Punjab, Gangetic plains up to Varanasi.
- **Key cities:** Purushapura (Peshawar – capital under Kanishka), Mathura, Taxila.
- **Religion:** Widespread Kushan patronage of Buddhism during this era led to the construction of stupas, monasteries, and vast religious complexes.
- **Coins:** The Kushans issued gold, silver and copper coins.
- The period also marked the rise of **Gandharan art**, a distinctive synthesis of Greek, Roman, Persian, and Indian traditions, with **Takshashila** serving as its core hub.
- **Decline:** Decline after 3rd century CE due to **Sassanian pressure and rise of Gupta power.**

Source: TH

NEWS IN SHORT

ARCHAEOLOGISTS DISCOVERED RARE KUSHANA-ERA COINS

Context

- Pakistani archaeologists found **rare decorative stones and coins** while excavating a **UNESCO-listed site near the historic city of Takshashila.**

About

- The discoveries were made at the **ancient Bhir Mound**, where experts unearthed **decorative stones dating to the 6th century BC** and **coins from the 2nd century AD.**
 - ♦ Metamorphic decorative stone identified as **lapis lazuli**, alongside the rare bronze coins attributed to the **Kushan dynasty.**
- **Coins** bear the image of Emperor **Vasudeva.**
 - ♦ Vasudeva is recognised by historians as the **last of the 'great Kushan rulers'** who presided over the region.

Kushans

- **Origin:** Central Asian nomadic tribe, originally part of the **Yuezhi confederation.**
 - ♦ Migrated from **north-west China** to Bactria (present-day Afghanistan–Central Asia).
 - ♦ **Kujula Kadphises** was the founder of the Kushan rule in India, established in north-western India around **1st century CE.**

U.S. TAKEOVER OF GREENLAND WOULD MARK END OF NATO: DENMARK

Context

- The Prime Minister of Denmark said that if **Trump took over Greenland that would mark an end of the Nato military alliance.**

About NATO

- NATO, or the North Atlantic Treaty Organization, is a **military alliance of countries.**
- **Establishment:** It was founded in **1949** with the signing of the North Atlantic Treaty, more popularly known as the **Washington Treaty.**
- **Aim:** To ensure the **security and defense of its member countries** through collective defense.
- **Founding Members:** The original members of NATO were Belgium, Canada, Denmark, France, Iceland, Italy, Luxembourg, the Netherlands, Norway, Portugal, the United Kingdom, and the United States.
- **Collective Defense:** The cornerstone of NATO is **Article 5** of the North Atlantic Treaty, which states that an armed attack against one or more of its members is considered an attack against all members.
- **Decision-Making:** Decisions within NATO are made on the basis of **consensus among member countries.**

- ♦ **The North Atlantic Council**, which includes the ambassadors of all member countries, is the **principal political decision-making body**.
- **Members:** It has **32 member countries**, Finland and **Sweden** became the 31st and 32nd members respectively.
- ♦ On signing the Treaty, countries voluntarily commit themselves to participating in the political consultations and military activities of the Organization.

Source: TH

GLOBAL MINIMUM TAX

Context

- **Organisation for Economic Co-operation & Development (OECD)** has finalized an agreement to exempt **US-based multinationals from 15% global minimum tax**.

About

- Under the agreement, other countries would be effectively **blocked from imposing additional taxes** on foreign subsidiaries of US multinationals to compensate for profits that are under-taxed in other jurisdictions.
- **Minimum Tax Rules:** The global minimum tax was created **to prevent multinational companies from dodging tax bills** by locating operations and booking income in low-tax countries.
 - ♦ **Aim:** To curb tax avoidance by multinational enterprises (MNEs) shifting profits to low- or no-tax jurisdictions.
 - ♦ It sets a **global minimum effective corporate tax rate of 15%**.
 - ♦ It applies to large MNEs with **annual global turnover ≥ €750 million**.

Organisation for Economic Co-operation & Development (OECD)

- The OECD is an intergovernmental organisation that promotes economic development, policy coordination, and global cooperation.
- **Motto:** "Better Policies for Better Lives."
- Established in **1961**, succeeding the Organisation for European Economic Co-operation (OEEC).
- **Headquarters:** Paris, France.
- **Membership:** 38 member countries (mainly developed economies). India is not a member.

Source: TH

INDIAN RAILWAYS BECOMES THE BIGGEST ELECTRIFIED RAIL SYSTEM GLOBALLY

In News

- Indian Railways has become the largest electrified rail network in the world, with about 99.2% of its broad-gauge network electrified by November 2025, marking a major milestone under Mission 100% Railway Electrification.

About

- Indian Railways is India's national transporter and one of the world's largest railway networks.
- It has achieved near-complete electrification of its broad-gauge routes, surpassing other major global railway systems in scale.
- Electrification rate surged from 1.42 km/day (2004–14) to over 15 km/day (2019–25) and 25 States/UTs fully electrified.

Source: TH

OPINION TRADING

In News

- A gambler made nearly half a million dollars by betting on Venezuelan President Nicolás Maduro's capture just before it was officially announced, sparking questions about Opinion trading platforms.

What are Opinion trading platforms?

- Opinion trading platforms let users bet on the outcome of yes/no events, with payouts depending on whether the prediction is correct.
- These platforms often resemble investment platforms, using terms like trading, profits, and stop loss.
- Users can place predictions on events such as sports, politics, weather, or crypto, earning money if their prediction is right and losing money if it is wrong.

Status Across the globe

- The opinion trading sector is regulated across countries like the US, UK and Australia.
- In the US, it is regulated by the Commodity Futures Trading Commission (CFTC), one the country's two main stock market regulators.

Regulation In India

- India cracked down on prediction markets starting in early 2025, when SEBI warned that such platforms were unregulated, lacked investor protection, and could involve illegal securities trading.

- In August 2025, the government imposed a blanket ban on online money gaming under the Promotion and Regulation of Online Gaming Act, 2025, effectively shutting down opinion trading platforms like Probo and Opinio.
- The law introduced strict penalties, including jail terms, heavy fines, bans on promotion, and restrictions on banking support.
 - ♦ At its peak, the sector had over 5 crore users and raised ₹4,200 crore from major investors.

Source :IE

OPEC+

Context

- OPEC+ has agreed in principle to maintain steady oil output despite rising political tensions among key members and widening geopolitical uncertainty.

About OPEC

- The **Organization of the Petroleum Exporting Countries (OPEC)** is a permanent, intergovernmental Organization, established in **1960** at the **Baghdad Conference** by **Iran, Iraq, Kuwait, Saudi Arabia and Venezuela**.
- Currently, it has **12 members**, viz. Algeria, Congo, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Saudi Arabia, the United Arab Emirates and **Venezuela**.
- **Headquartered in Vienna, Austria** (a non-member state), its objective is to co-ordinate and unify petroleum policies among Member Countries, in order to secure fair and stable prices for petroleum producers.

OPEC+ (OPEC Plus)

- **OPEC+ has 22 members**, made up of **10 major oil producing countries** (Russia, Kazakhstan, Azerbaijan, Brunei, Bahrain, Mexico, Oman, South Sudan, Sudan and Malaysia), **along with the 12 OPEC members**.
- The **OPEC+ was formed in 2016** following the adoption of the **Algiers Accord** by OPEC members and the signing of the **Vienna Agreement** between OPEC and other major oil-exporting countries.
- The move was largely a response to sharply falling oil prices caused by a surge in U.S. shale oil production.

Source: AIR

MPEMBA EFFECT

In News

- Indian scientists have developed the first supercomputer-based simulation that successfully reproduces the **Mpemba effect**, helping resolve a long-standing scientific paradox as to why hot water can freeze faster than cold water under certain conditions.

About Mpemba Effect

- The Mpemba effect is a **counterintuitive physical phenomenon** in which hot water freezes faster than cold water when both are placed under similar conditions.
- It is named after **Erasto Mpemba**, who reported it scientifically in 1969.
- The phenomenon was observed earlier by thinkers such as Aristotle, Francis Bacon, and René Descartes, but lacked a satisfactory explanation for centuries.
- No single mechanism fully explains it, but key factors include **faster evaporation from hot water, stronger convection currents, reduced supercooling** due to fewer dissolved gases, and better heat transfer after melting surface frost.

Applications

- **Climate science & cryosphere studies:** Better modelling of ice formation and freezing processes.
- **Industrial freezing & food processing:** Optimising cooling and freezing efficiency.
- **Materials science:** Understanding crystallisation and thermal history effects.

Source: AIR

BIOHAPPINESS

In News

- The M.S. Swaminathan Research Foundation has begun work on a project on Biohappiness in Keyi Panyor district of Arunachal Pradesh.

Do you know?

- Keyi Panyor became Arunachal Pradesh's 26th district, with its headquarters at Ter Gapin-Sam Sarth, fulfilling a long-standing demand of the Nyishi community.

BioHappiness

- It is a term coined by late **agricultural scientist Dr. M.S. Swaminathan**.
- It is a state of well-being and fulfillment achieved by conserving and using biodiversity to improve human health, nutrition, and livelihoods, fostering

harmony between people and nature, as explained in his book *In Search of Biohappiness: Biodiversity and Food, Health and Livelihood Security*.

- The new Biohappiness Project in Keyi Panyor district of Arunachal Pradesh would look at the livelihoods of the residents, the agro-biodiversity of the district, and other ecological aspects within its boundaries.

Source :TH

