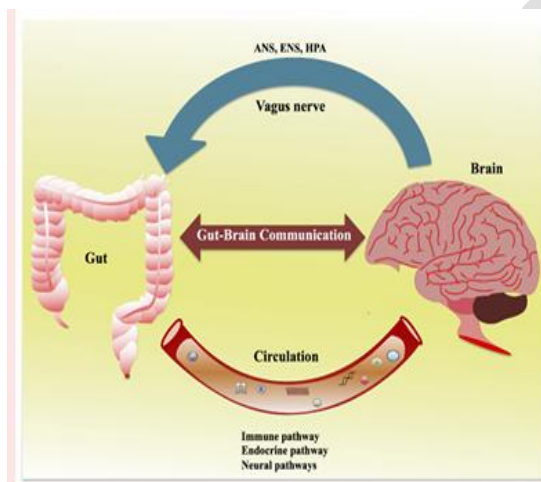


**Topic - Cochlear implant**

A cochlear implant is a surgically implanted electronic device that helps people with severe to profound sensorineural hearing loss perceive sound. Unlike a hearing aid, which only amplifies sound, a cochlear implant bypasses the damaged parts of the inner ear and directly stimulates the auditory nerve

**Antibiotics and mental Health Gut-Brain Axis** The gut microbiome regulates serotonin, dopamine, mood, stress, and sleep cycles. Antibiotics disrupt microbial diversity → dysbiosis → altered neurotransmission, inflammation, and psychiatric vulnerabilities. Dysbiosis is linked to anxiety, depression, cognitive decline



**Challenges** Public ignorance of gut-brain axis. Cultural preference for quick fixes & antibiotics over lifestyle/dietary solutions. Weak regulatory oversight: unregulated pharmacies, OTC sales, rural healthcare gaps. Fragmented medical practice: antibiotics often prescribed for viral illnesses.

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**56th GST Council Meeting**

**Structural Overhaul** Old 4-slab structure (5%, 12%, 18%, 28%) replaced by: 5% – Merit Rate (essentials, daily-use items). 18% – Standard Rate (majority of goods & services). 40% – De-merit Rate (select luxury/sin goods). Aims to simplify compliance, enhance predictability, and align with global practices

**Relief to Households & Consumers**  
Exemptions: UHT milk, paneer, chapati, paratha. 5% GST: soap, shampoo, toothpaste, bicycles, kitchenware. Packaged foods (noodles, chocolates, beverages) → GST cuts → boost in consumption. Insurance & Healthcare Complete GST exemption on life and health insurance → improves affordability, increases penetration, especially for low income families & senior citizens.

**Healthcare boost:** Exemptions/reductions on drugs, devices & treatments for cancer, rare diseases, and chronic conditions.



**Agriculture & Farmers** Farm machinery & tractors → 5% GST. Fertilizers & key inputs (sulphuric acid, ammonia) → reduced from 18% to 5%. Correction of inverted duty

structures lowers cultivation costs and boosts productivity.

Support to Labour-Intensive & Traditional Industries GST reductions for handicrafts, marble, granite, leather goods. Expected to stimulate demand, protect employment, and make traditional industries competitive. Critical Sectoral Corrections Textiles: Man-made fibre & yarn → 5% (resolves long-standing anomaly, supports exports & jobs). Cement: Reduced from 28% to 18% → boosts housing & infrastructure. Renewable energy devices & auto components: GST cuts to aid green growth.

Hospitality & wellness: rationalised rates to support tourism and services. Institutional Strengthening GST Appellate Tribunal (GSTAT) to become operational by end 2025 → ensures faster dispute resolution & consistent rulings. Enhances taxpayer trust and system credibility

Process Simplification Provisional refunds allowed for inverted duty structures. Risk-based compliance checks → reduces harassment. Harmonised valuation rules → curbs disputes and confusion. Implementation Strategy Reforms phased in from Sept 22, 2025. Sequencing designed to ensure revenue stability while providing immediate benefits to industry & citizens.

Broader Significance Reform seen as a "People's Reform", not just technical adjustment. Touches citizens, farmers, MSMEs, industries, and services. Reinforces ease of doing business, inclusive growth, and cooperative federalism.

Positions GST 2.0 as a foundation for Viksit Bharat 2047.

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### Data Moat

A data moat is a defensible competitive advantage that a company builds by collecting, analysing, and leveraging exclusive, high-quality data that is difficult for competitors to replicate. This concept, inspired by Warren Buffett's "economic moat," refers to a company's ability to protect its market position from rivals



High-quality and relevant: The data is clean, well-labeled, and directly relevant to the core business. Poor-quality data can undermine any competitive advantage. Compounding effect: The data becomes more valuable and difficult to replicate as the company's product is used more. This creates a virtuous cycle where better data leads to a better product, which attracts more users, generating even more data. Hard to replicate: The data is difficult to acquire due to various factors, such as network effects, regulatory barriers, or the sheer time and resources it took to collect.

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### NITI Aayog Report on Pulses

Context & Importance Report: "Strategies and Pathways for Accelerating Growth in Pulses towards the Goal of Atmanirbharta". India = world's largest producer, consumer, and importer of pulses.



Pulses critical for: Nutritional security (rich in protein). Food security (affordable dietary staple). Sustainable agriculture (nitrogen fixation, soil health). Rural livelihoods (supports 5+ crore farmers and families). Production Trends 2015–16: Production fell to 16.35 MT, imports needed = 6 MT (29% dependency). Government interventions (price support, MSP hikes, R&D, NFSM Pulses, better varieties) boosted output. 2022–23: Production ↑ by 59.4% → 26.06 MT. Productivity ↑ by 38% Import dependence reduced to 10.4%. Target: Self-sufficiency in pulses in 10 years (as per Ramesh Chand, NITI Aayog).

Regional Dimensions Agro-climatic diversity allows cultivation of 12 pulse crops in kharif, rabi, summer seasons. Production highly concentrated: Madhya Pradesh, Maharashtra, Rajasthan → 55% of output. Top 10 States → 91% of national production. Challenge: Uneven distribution; some states lagging → need region- and district-specific strategies.

Structural Challenges 80% production is rain-fed → vulnerability to monsoon variability. Low irrigation coverage & inadequate extension support. Yield gaps due to poor seed replacement, pests/diseases, limited mechanisation. Import dependence persists due to mismatch in domestic demand vs. local production capacity.

Policy Recommendations (NITI Aayog) Tailored strategies for each State/district → address local constraints. Technology adoption: High yielding, pest-resistant, and climate-resilient varieties. Expansion of irrigation in pulse growing belts Crop diversification: integrate pulses into rice-wheat systems, intercropping, double cropping. Incentives & MSP policy: strengthen procurement through PSS & PM-AASHA. Awareness & extension services: improve farmer knowledge on package of practices. Infrastructure & markets: cold chains, processing, storage to reduce post-harvest losses. . Strategic Significance Reduced imports = savings in forex, improved farm incomes. Enhances nutritional security (protein intake, especially for poor households). Strengthens Atmanirbharta (self-reliance) in agriculture. Contributes to sustainability → lowers fertilizer needs, improves soil health, cuts GHG emissions.

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### What is corporate buyback

A corporate buyback, or share repurchase, is a strategic move by a company to buy its own outstanding shares from the open market or directly from its shareholders. This action reduces the number of shares

available to the public, impacting the company's financial metrics and potentially increasing the stock's value

How a corporate buyback works  
Tender offer: The company offers to buy back a specific number of shares from its shareholders within a set period and at a fixed price, which is usually higher than the current market value.

Open-market purchase: The company buys its shares directly from the open market over a period of time, similar to how any other investor would. This method offers more flexibility in timing and pricing than a tender offer.  
Direct negotiation: In this less common method, the company negotiates directly with a small number of large shareholders to repurchase their shares, often at a premium



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### Council of the International Civil Aviation Organization (ICAO)

About ICAO ICAO = A specialized agency of the United Nations, established in 1944 by the Chicago Convention on International Civil Aviation. HQ: Montreal, Canada. Mandate: To set international standards and regulations for civil aviation safety, security, efficiency, and environmental protection.

### Composition

1. Total members: 36 States (elected by the Assembly for a 3-year term). Distribution of seats is based on 3 criteria: States of chief importance in air transport (major aviation powers).

2. 3. States which make the largest contribution to the provision of facilities for international civil air navigation (infrastructure providers). States whose designation will ensure geographic representation (balanced global participation)

India and ICAO India is a founding member of ICAO (since 1944). India is often elected to the ICAO Council due to its strategic role in global aviation. Recently, in 2022, India was elected to the ICAO Council for a 3-year term (2022–2025).



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