

1 राष्ट्रीय सहकारिता नीति, 2025

- 8.5+ लाख सहकारी समितियों को सशक्त बनाना
- PACS सुधार और बहुउद्देशीय भूमिका
- राष्ट्रीय सहकारी डेटाबेस और डिजिटल शासन
- सहकारी निर्यात को बढ़ावा
- महिला एवं युवा सहभागिता
- सहकारिता के 'ईज ऑफ डूइंग' में सुधार



मूल्य संवर्धन: सहकारिता संघवाद से समावेशी विकास और ग्रामीण समृद्धि।

मुख्य कीवर्ड: सहकारिताएँ, PACS, 97वाँ संवैधानिक संशोधन, बहुउद्देशीय समिति, डिजिटल शासन

2 ई-श्रम पोर्टल एवं सार्वभौमिक सामाजिक सुरक्षा

- असंगठित श्रमिकों का राष्ट्रीय डेटाबेस
- गिंग, प्लेटफॉर्म, प्रवासी, घरेलू, निर्माण श्रमिक शामिल
- UAN के माध्यम से पोर्टबिलिटी
- कल्याण योजनाओं से लिंक और लक्ष्यीकरण
- आपदा सहायता एवं कौशल समर्थन
- समावेशी श्रम नीति को सुदृढ़ बनाता है



मूल्य संवर्धन: एकल प्लेटफॉर्म से कल्याण डिलीवरी में सुगमता।

मुख्य कीवर्ड: ई-श्रम, UAN, असंगठित श्रमिक, सामाजिक सुरक्षा, पोर्टबिलिटी

3 डिजिटल हेल्थ मिशन एवं आयुष एकीकरण

- आयुष का राष्ट्रीय स्वास्थ्य प्रणाली में एकीकरण
- पारंपरिक चिकित्सा और समग्र स्वास्थ्य को बढ़ावा
- ई-हेल्थ और आयुष ग्रिड से डिजिटल पहुँच
- औषधीय पौधों के क्षेत्र को प्रोत्साहन
- WHO वैश्विक पारंपरिक चिकित्सा केंद्र, जामनगर
- रोकथाम आधारित एवं किफ़ायती स्वास्थ्य सेवा



मूल्य संवर्धन: वेलनेस, रोकथाम और समग्र स्वास्थ्य से स्वस्थ भारत।

मुख्य कीवर्ड: आयुष, आयुष ग्रिड, औषधीय पौधे, समग्र स्वास्थ्य, WHO GCTM

4 पीएम विक्षकर्मा योजना

- 18 पारंपरिक व्यवसायों और कारीगरों को समर्थन
- कौशल प्रशिक्षण + टूलकिट प्रोत्साहन
- ₹3 लाख तक बिना गारंटी ऋण
- डिजिटल भुगतान और विपणन सहायता
- ब्रांडिंग: 'लोकल टू ग्लोबल'
- आत्मनिर्भर भारत और मेक इन इंडिया को बल



मूल्य संवर्धन: कारीगरों की गरिमा + आजीविका सुरक्षा।

मुख्य कीवर्ड: कारीगर, कौशल, टूलकिट, क्रेडिट, आत्मनिर्भर भारत

5 वित्तीय समावेशन एवं डिजिटल लेंडिंग ढांचा

- सर्वव्यापी बैंकिंग एवं सुलभ ऋण सुविधा
- डिजिटल लेंडिंग के लिए दिशानिर्देश
- खाता एग्रीगेटर ढांचे का विस्तार
- जन धन + UPI + DBT से जुड़ाव
- जिम्मेदार फ़िनटेक विकास पर जोर
- डेटा गोपनीयता और साइबर सुरक्षा पर ध्यान



मूल्य संवर्धन: नवाचार के साथ सुरक्षा और विश्वास।

मुख्य कीवर्ड: डिजिटल लेंडिंग, फ़िनटेक, AA, UPI, वित्तीय समावेशन, उपभोक्ता सुरक्षा

6 पीएम मत्स्य संपदा योजना (PMMSY)

- 2020 में लॉन्च: ब्लू इकोनॉमी को बढ़ावा
- सतत मत्स्य पालन और जलीय कृषि पर फोकस
- कोल्ड चेन, प्रोसेसिंग और अवसंरचना सहायता
- निर्यात को बढ़ावा और तटीय आजीविका
- महिला सशक्तिकरण और रोजगार सृजन
- पोषण सुरक्षा और ग्रामीण अर्थव्यवस्था में योगदान



मूल्य संवर्धन: मत्स्य पालन ग्रामीण विकास का उभरता क्षेत्र।

मुख्य कीवर्ड: PMMSY, मत्स्य पालन, जलीय कृषि, ब्लू इकोनॉमी, आजीविका

7 राष्ट्रीय लॉजिस्टिक्स नीति एवं समुद्री विकास

- लॉजिस्टिक्स लागत घटाना, दक्षता बढ़ाना
- PM गति शक्ति से जुड़ाव
- सागरमाला से बंदरगाह विकास
- अंतराष्ट्रीय जलमार्ग और मल्टीमॉडल कनेक्टिविटी
- उत्पादन एवं निर्यात को वैश्विक प्रतिस्पर्धा



मूल्य संवर्धन: बेहतर लॉजिस्टिक्स = प्रतिस्पर्धी अर्थव्यवस्था।

मुख्य कीवर्ड: लॉजिस्टिक्स, गति शक्ति, सागरमाला, भारतमाला, मल्टीमॉडल कनेक्टिविटी

8 ग्रीन मोबिलिटी एवं इलेक्ट्रिक वाहन

- EV अपनाने और विनिर्माण को बढ़ावा
- EV मांग प्रोत्साहन और चार्जिंग अवसंरचना
- बैटरी निर्माण एवं स्टोरेज पर जोर
- ACC बैटरी PLI एवं ऑटो PLI योजनाएँ
- नेट-जिरो लक्ष्यों की दिशा में कदम
- बैटरी रीसाइलिंग और सतत पारिस्थितिकी तंत्र



मूल्य संवर्धन: स्वच्छ परिवहन से जलवायु प्रतिबद्धताओं को बल।

मुख्य कीवर्ड: EV, FAME, PLI, बैटरी, ग्रीन मोबिलिटी, नेट-जिरो

9 PIB पृष्ठभूमि- 'संचर्ष से समृद्धि की ओर'

- भारत की विकास यात्रा का व्यापक विवरण
- गरीबी में कमी और समावेशी विकास
- इंफ्रास्ट्रक्चर, स्वच्छता, आवास में प्रगति
- वित्तीय समावेशन और डिजिटल शासन
- स्वास्थ्य, शिक्षा और महिला सशक्तिकरण
- SDGs के साथ संरेखित विकास विजन



मूल्य संवर्धन: निबंध, GS उत्तरों और शासन विश्लेषण में उपयोगी।

मुख्य कीवर्ड: समावेशी विकास, SDGs, डिजिटल इंडिया, सुशासन, विकास यात्रा

अन्य महत्वपूर्ण एक-पंक्तियाँ



सुप्रीम कोर्ट: नागरिकता निर्णय निष्पक्ष और कानूनी होना चाहिए।



खुदरा मुद्रास्फीति RBI लक्ष्य (4%) से बढ़कर 4.4% हुई।



पश्चिमी घाट में वर्षा का हाथियों की गतिविधि पर बड़ा प्रभाव।



सभी लक्षावध जिलों को स्वायत्त पहाड़ी परिषदें मिलेंगी।



अध्ययन: परमाणु अपशिष्ट जल को फ़िल्टर करने का कुशल तरीका मिला।

1 National Cooperation Policy, 2025

- Strengthen 8.5+ lakh cooperatives
- Focus on PACS reforms & multipurpose role
- Digital governance & National Cooperative Database
- Promote cooperative exports
- Women & youth participation
- Ease of doing cooperative business



Value Add: Cooperative federalism for inclusive growth & rural prosperity.

Keywords: Cooperatives, PACS, 97th Amendment, Multi-purpose, Digital Governance

2 e-Shram Portal & Universal Social Security

- National database of unorganised workers
- Covers gig, platform, migrant, domestic, construction workers
- UAN for portability of benefits
- Links with welfare & social security schemes
- Disaster assistance & skill support
- Strengthens inclusive labour policy



Value Add: One-stop platform for last-mile delivery of social security.

Keywords: e-Shram, UAN, Unorganised Workers, Social Security, Portability

3 Digital Health Mission & AYUSH Integration

- AYUSH integrated with national health systems
- Promotes traditional medicine & holistic wellness
- e-Health & Ayush Grid for digital access
- Boost to medicinal plants sector
- WHO Global Centre for Traditional Medicine, Jamnagar
- Supports preventive & affordable healthcare



Value Add: Wellness + Preventive care + Affordable healthcare for all.

Keywords: AYUSH, Ayush Grid, Medicinal Plants, Integrative Healthcare, WHO GCTM

4 PM Vishwakarma Scheme

- Support to 18 traditional trades & artisans
- Skill training + Toolkit incentive
- Collateral-free credit up to ₹3 lakh
- Digital payments & marketing support
- Branding: Local to Global
- Strengthens Atmanirbhar & Make in India



Value Add: Dignity of labour + livelihood security for artisans.

Keywords: Artisans, Skill, Credit, Toolkit, Atmanirbhar Bharat

5 Financial Inclusion & Digital Lending Framework

- Universal banking & affordable credit
- Digital Lending Guidelines for consumer protection
- Account Aggregator Framework
- Strength of Jan Dhan + UPI + DBT
- Responsible fintech growth
- Data privacy & cybersecurity focus



Value Add: Inclusive finance with innovation, safety & trust.

Keywords: FinTech, Digital Lending, AA, UPI, Financial Inclusion, Consumer Protection

6 PM Matsya Sampada Yojana (PMMSY)

- Launched in 2020 for Blue Revolution
- Focus on sustainable fisheries & aquaculture
- Cold chain, processing & infrastructure support
- Boosts exports & coastal livelihoods
- Women empowerment in fisheries sector
- Contributes to nutrition & employment



Value Add: Fisheries as a sunrise sector for rural growth & nutrition.

Keywords: Fisheries, Aquaculture, Blue Economy, PMMSY, Livelihood

7 National Logistics Policy & Maritime Development

- Reduce logistics cost, improve efficiency
- Linked with PM Gati Shakti
- Sagarmala for port-led development
- Strengthening inland waterways
- Multimodal connectivity
- Boost to manufacturing & exports



Value Add: Efficient logistics = Competitive India.

Keywords: Logistics, Gati Shakti, Sagarmala, Bharatmala, Inland Waterways

8 Green Mobility & Electric Vehicles

- Faster Adoption & Manufacturing of (Hybrid &) Electric Vehicles
- Incentives for EV demand & charging infrastructure
- Battery manufacturing & storage push
- ACC Battery PLI Scheme
- EV ecosystem for Net-Zero goals
- Focus on battery recycling



Value Add: Clean mobility for climate commitments & jobs.

Keywords: EV, FAME, PLI, Battery, Green Mobility, Net-Zero

9 PIB Backgrounder – Journey of Grit, Pathways of Growth

- Highlights India's development journey
- Poverty reduction & inclusive growth
- Infrastructure, sanitation & housing gains
- Financial inclusion & digital governance
- Health, education & women empowerment
- Aligned with SDGs & Viksit Bharat vision



Value Add: Strong data base for Essays, GS & Governance answers.

Keywords: Inclusive Growth, SDGs, Governance, Development, Viksit Bharat

Other Important One-Liners



SC: Citizenship rulings must be fair & lawful.



Retail inflation rises above RBI target to 4.4%.



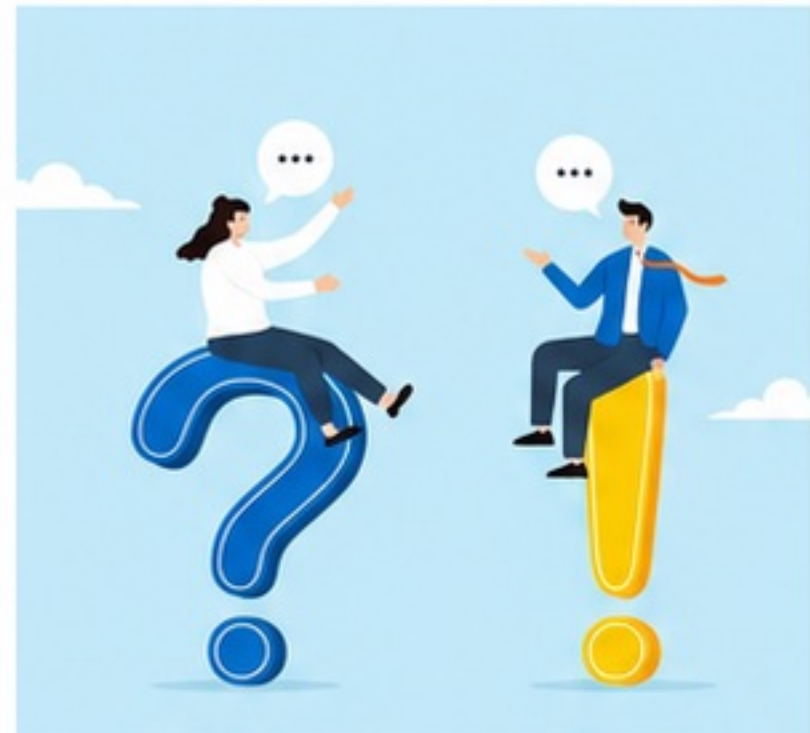
Rainfall impacts elephant movement in Western Ghats.



All Ladakh districts to get autonomous hill councils.



Study finds efficient way to filter nuclear wastewater.



FROM THE ARCHIVES

Know your English

S. Upendran

What is the meaning of “apple polishing”? (Rahul Sharma, Kola, Rajasthan)

It means “flattery”. Believe it or not, this is an expression which owes its origin to the practice followed by school children.

What is it that people do in order to win the approval of their superiors? They either give them gifts or flatter them.

Some school going children did the same thing in order to be in the teacher’s good books. These kids took apples to school and polished them till they gleamed. Then they presented them to the class teacher! They hoped that by doing this, the teacher would overlook their poor performance in class and instead give them good marks.

Vani’s apple-polishing didn’t get her anywhere.

Do not use this word in formal contexts. It is considered slang.

What is the difference between “homophone” and “homonym”? (P.V.V.S. Lakshmi, Kakinada)

In everyday contexts these two words are used interchangeably. But there is a difference in meaning between the two.

The word “homophone” comes from the Greek “homo” meaning “same” and “phone” meaning “sound”. Strictly speaking therefore, the word homophone is used to refer to words which sound alike, although they have a different spelling and meaning. Here are a few examples: mail, male; wear, ware; metal, mettle; etc.

A homonym, on the other hand, is used to refer to words which have the same spelling and pronunciation but have a different meaning. For example May (month), may (possibility); can (be able), can (put something in container); bear (the animal), bear (to carry).

As I mentioned earlier, this distinction is seldom maintained in everyday conversation. People in general tend to use “homonym” to mean “homophone”.

A note about the pronunciation. The first “o” in both the words is pronounced like the “o” in “hot”, “pot”, and “got”.

The second “o” is like the “a” in “China”. It’s the first syllable which has the stress in both words. This is one way of pronouncing the words.

How do you answer someone who says “Nice to meet you”? (P. Lokeshwar Rao, Mosopalli)

When you are introduced to someone and the person says, “Nice to meet you” the standard reply is “Nice to meet you” with the emphasis on “you”. It’s like

“How do you do?” When someone says “How do you do?” your reply is, “How do you do?”. Other ways of responding to “Nice to meet you” are “Likewise”, “It’s a pleasure meeting you”, “Same here”, etc.

Is the word “orange” a Tamil word? (P. Somasundaram, Chennai)

Many Tamilians would like to think so!

Some argue that the word orange comes from the Tamil words “six” and “five” respectively. The good news is that the word does come from an Indian language – Sanskrit. Scholars who have studied the origin of words contend that the word “orange” comes from the Sanskrit “naranga”.

Published in The Hindu on May 1, 2001



- “Apple polishing” = flattery to gain favour.
- Origin: school children polished apples to please teachers.
- Informal slang. Avoid in formal writing/speech.



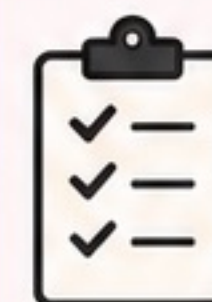
- Homophone = same sound, different spelling/meaning. (e.g., mail/male, wear/ware)
- Homonym = same spelling & pronunciation, different meaning. (e.g., May/month, can/can)
- In daily use, “homonym” is often used to mean homophone.



- Standard reply to “Nice to meet you” = “Nice to meet you” (emphasis on “you”).
- Other responses: “Likewise”, “It’s a pleasure meeting you”, “Same here”.



- “Orange” comes from Sanskrit “naranga”.
- Not from Tamil “six” (aru) and “five” (anju).
- Origin traced to Indian (Sanskrit) language.



- Language precision improves communication quality.
- Understand word origin, usage & context.
- Important for essays, interviews & civil service exams.

India's green transition is missing long-duration energy storage

Longer-term energy storage is needed to ensure that the grid remains reliable during prolonged periods of low solar and wind generation; the longer the time over which a technology discharges energy, the better its economics; at the same time, storing more energy is also expensive

Aedna Kurian
Ammu Susanna Jacob

On May 21, India recorded its highest peak demand of 270.8 gigawatt (GW) during the day, an increase of approximately 90 GW from the same window in 2019. While power generators often meet India's summer peak, the demand again increases at night, especially due to the use of air conditioners. This underscores the need for longer-term energy storage to ensure the grid remains reliable during prolonged periods of low solar and wind generation.

India's current energy storage roadmap only offers a partial solution. The 2026 Long-Term National Resource Adequacy Plan envisages 80 GW of battery energy storage and 94 GW of pumped hydroelectric energy storage (PHES) by FY2035-36. This translates to average discharge durations of roughly 4 and 6 hours, respectively.

This could be enough to address short-term fluctuations but may not suffice during adverse weather conditions, such as heatwaves.

In this context, long-duration energy storage (LDES) technologies, which are capable of delivering power for days rather than hours, could turn out to be the missing pillar of India's green energy transition.

Diverse landscape

LDES refers to technologies that store energy and discharge it as power or thermal energy over extended periods, from 8 hours to days, weeks, or seasons.

By storing energy when renewable generation is abundant and supplying it during periods of peak demand or low reliability and flexibility to support a renewable-heavy grid.

Further, unlike short-duration energy storage systems, which discharge energy for less than 8 hours and smooth intra-day demand fluctuations, LDES provides the endurance needed to balance supply and demand for prolonged periods, ease grid congestion, and provide grid resilience and stability.

Several LDES technologies are available today, each at different stages of development and commercial readiness, including PHES, compressed-air energy storage (CAES), thermal storage, hydrogen-based storage, and flow batteries.

Of these, PHES remains the benchmark because of its mature infrastructure and a high energy efficiency of 70-80%. CAES has a similar level of market readiness but a slightly lower efficiency of 40-70%. Thermal storage stands out for its long discharge duration – around 200 hours – and an energy efficiency of 55-90%. However, researchers are still developing it.



A pumped hydroelectric storage power plant in Tasmania. The plant stores electricity by pumping water uphill when power is abundant. Later, generating electricity downhill through turbines, generating electricity during periods of high demand. GETTY IMAGES

The longer the time over which a technology discharges energy, the better its economics. At the same time, storing more energy also costs more. So for discharge durations beyond six hours, short-duration energy storage systems are unlikely to prove cost-effective.

The LDES Council is an international body that brings together industry leaders, technology developers, investors, policymakers, and other stakeholders to accelerate the innovation and commercialisation of LDES technologies. It has projected a significant decrease in LDES costs by 2030, making it an economically feasible storage solution.

According to a study by Pacific Northwest National Laboratory, a research body under the U.S. Department of Energy, PHES and CAES are the most cost-effective and commercially viable technologies at present, at \$0.12/kWh and \$0.10/kWh, respectively.

However, both technologies need specific site conditions. PHES requires two water reservoirs at different heights so that water can be pumped to the upper reservoir when surplus electricity is generated and discharged when needed. The site must have enough head for the cutting-edge solutions like iron-air flow batteries. In all, the LDES landscape is diverse and worth looking forward to, by the time.

Costs of long-term storage

Although chemical energy storage, such as with hydrogen, has even higher discharge durations of up to 1,000 hours, it is not efficient. Vanadium flow batteries – an example of electrochemical energy storage – are commercially ready, come batteries – which depend less on specific

Long-duration energy storage (LDES) technologies, which are capable of delivering power for days rather than hours, could turn out to be the missing pillar of India's green energy transition

telecommunications, and other public utility services, has set an LDES procurement target of 2 GW. It has said this capacity will be deployed between 2031 and 2037.

Similarly, to unlock investments and accelerate deployment, the U.K. has launched a financial framework for LDES that provides a safety net for investors. Among other measures, it will ensure LDES projects have a minimum revenue, even in poor market conditions.

Per a 2026 report by the Central Electricity Authority, India's PHES potential is about 267 GW. The report also said India plans to install PHES projects with an aggregate capacity of 100.8 GW by 2035-2036. Of this, 11.6 GW is currently under construction.

In early 2025, India also launched a 160-MWh carbon dioxide battery storage system at the National Thermal Power Corporation (NTPC) in Kudgi, Karnataka. It works by cycling carbon dioxide between liquid and gas phases and has an operational life exceeding 25 years. This was followed by inaugurating the country's first MWh-scale vanadium redox flow battery system – a 3-MWh facility installation at NTPC in Greater Noida.

Proposed roadmap

While the Long-Term National Resource Adequacy Plan acknowledges the role of energy storage in maintaining power grid reliability, it does not specifically



- On May 21, India recorded peak demand of 270.8 GW.
- Increase of ~90 GW from same window in 2019.
- Night-time demand surge due to ACs increases pressure on grid.
- Long-duration energy storage essential for reliability during low solar/wind periods.



- 2026 Roadmap: 80 GW battery storage + 94 GW PHES by FY2035-36.
- Average discharge duration: PHES ~4 hrs, battery ~6 hrs.
- Insufficient for extreme weather events (heatwaves, etc.).
- LDES can deliver power for days, not just hours.



- LDES: Store & discharge energy from 8 hours to days, weeks, or seasons.
- Improves reliability, flexibility & resilience of renewable grid.
- Helps balance supply-demand for long durations.



- Technologies: PHES, CAES, thermal storage, hydrogen-based storage, flow batteries.
- PHES efficiency: 70-80% (most mature).
- CAES efficiency: 40-70%.
- Thermal storage: Up to 200 hrs discharge, 55-90% efficiency.



- LDES costs falling significantly by 2030.
- PHES: \$0.12/kWh
- CAES: \$0.10/kWh
- Cost-effective for durations beyond ~6 hours.



- India's PHES potential ~267 GW.
- Target: 100.8 GW by 2035-36 (11.6 GW under construction).
- 160-MWh CO₂ battery storage system launched at NTPC Kudgi.
- 3-MWh vanadium flow battery installed at NTPC, Noida.



- Include LDES in Ministry of Power's roadmap.
- Create policy & financial framework for investments.
- Ensure grid-ready infrastructure, training & awareness.
- Long-term planning vital for India's clean energy future.

22 July 2025

Why inflation is rising in India

India's recent inflation surge has been mainly driven by higher fuel costs and food price pressures rather than excess demand; food inflation stems largely from supply shocks such as poor monsoons, while rising oil prices have pushed up production costs and manufactured goods inflation

ECONOMIC NOTES

Rohit Azad

Indranil Chowdhury

Inflation, except during the COVID-19 pandemic, has remained relatively low in India for over a decade. But it is back with a bang. Wholesale Price Index (WPI) inflation is hovering close to 10% in June (Chart 1a). After remaining low – negative, or close to 0 – until December last year, the climb started with a sharp jump since March this year.

Even those with only a fleeting connection to economics believe that prices rise when demand outpaces supply (overheating), and vice versa. But is that really the case?

Before we go into the causes, let us look at what contributed to this rise in WPI inflation in the first place. The WPI is a weighted average of three sub-categories of commodities: primary articles (food, minerals, etc.), fuel and power and manufactured products.

Chart 1b shows the contribution of each to total WPI inflation. The latter two – the orange and the red bars – have contributed to this dramatic jump in recent months. Fuel and power prices require little explanation as they are determined by oil prices purchased from abroad and are essentially imported prices. However, primary commodity and manufactured product prices need to be understood.

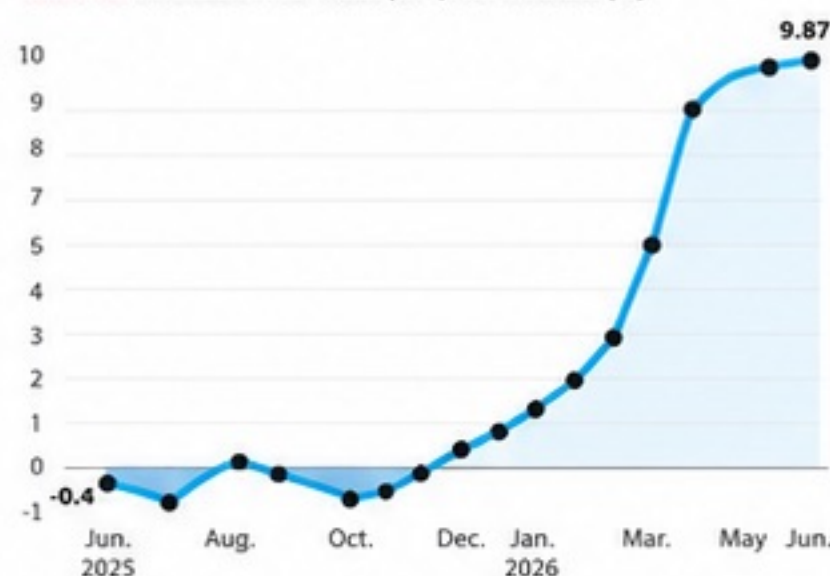
Structural differences in pricing

The Polish economist Michal Kalecki argued that while primary commodity prices are demand-determined, industrial prices are cost-determined. In other words, inflation of industrial commodities is not determined by a demand and supply mismatch. Come to think of it, this is commonsensical if you leave aside the quintessential demand-supply curves out of your head. After all, prices of cars, cycles, or toothbrushes do not fluctuate with a change in their demand. If more cars are demanded, more are made. If mood and supplied to the customer instead of increasing the price. Prices of tomatoes or mangoes, on the other hand, vary quite significantly with a mismatch between demand and supply.

Decoding India's inflation

A look at the main drivers of India's recent inflation and the forces shaping prices across the economy

Chart 1a: Wholesale Price Index (WPI): YoY Inflation (%)



Source: Authors' calculations; Office of the Economic Adviser, DPIIT, Ministry of Commerce & Industry, Government of India (WPI, base 2022=23)

Chart 1b: Weighted contribution to WPI Inflation (in %)

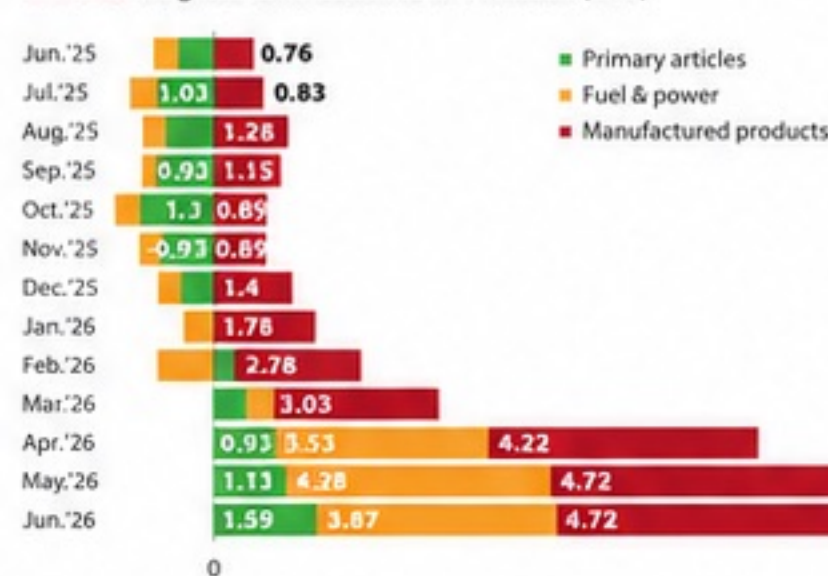
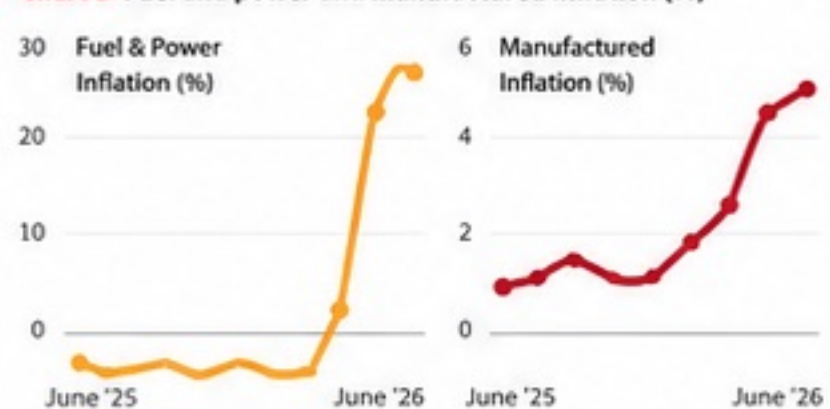
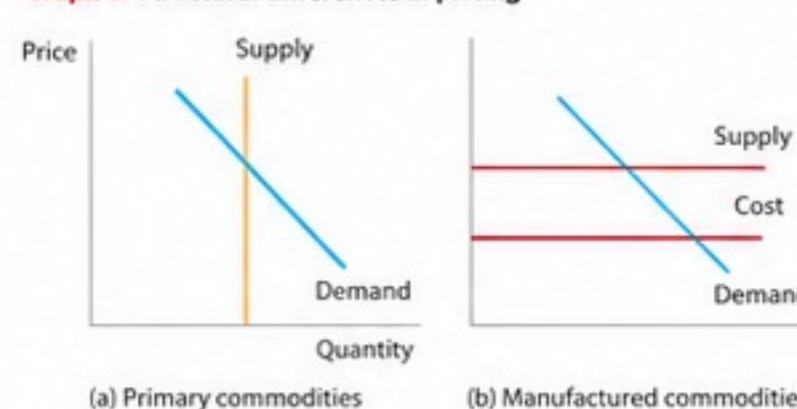


Chart 2: Fuel and power and manufactured inflation (%)



Source: Authors' calculations; Office of the Economic Adviser, DPIIT, Ministry of Commerce & Industry, Government of India (WPI, base 2022=23)

Graph 1: Structural differences in pricing



For the manufactured commodities (panel (b)), the supply curve is flat, which means a rise or a fall in demand (shifting of the demand curve) will bring about an equivalent supply of such commodities with no change in their prices. Again, the reason is simple. Most such commodities, except in cases of supply constraints, are produced in factories that run below capacity, so an increase in their demand supply increases their production.

Demand here, quite opposite to the earlier case, has no role to play in determining their prices. Prices are determined instead by the cost of production. The supply curve is nothing but a profit markup over the cost (the vertical difference between supply and cost is the profit markup). A rise in the costs would push the cost curve up, and, unless the capitalists want to absorb this rise in cost through a lower markup, this would get passed on as higher prices in the market. Inflation here is purely cost-push.

What happened in the Indian case?

Having seen this difference, let us apply this idea to the inflationary problem currently facing India. If manufactured prices are cost-determined, what do their

see almost a one-to-one correspondence between the two. A rise in fuel and power prices raised the manufactured inflation as well.

Food prices, too, have risen. One likely reason is the adverse impact of an inadequate monsoon, as a result of the El Niño effect, on agricultural production this year. Chart 3 plots data on food price inflation with years in which the country experienced droughts. In every instance drought conditions were accompanied by a significant rise in food inflation, much in line with the Kaleckian structuralist idea. To be sure, there have been instances in which food price inflation has taken place even in the absence of such supply shocks. These could perhaps be the years of high demand. Suffice to say that a drought is a sufficient, even if not a necessary, condition for food prices to soar.

What is to be done?

Given these structural differences, can something be done to control inflation? Let us start with the food prices. We believe food prices need to be decoupled from the vagaries of nature to the extent possible. That India solely depends on the

rain gods to feed its population is in itself quite unscientific and an anachronism in the modern era of technology. The country must invest heavily in agriculture, particularly in irrigation infrastructure, which is not entirely dependent on the monsoon.

As for manufactured goods, controlling fuel and power costs, when crude oil prices are rising, may be difficult, but there are still ways that they can be controlled. Instead of the ill-thought-out inflation targeting framework, the government should apply a countercyclical indirect tax policy to keep fuel and power prices in check. If the government can reduce the customs and excise duties when crude prices soar, the cost at the pump can be controlled. In fact, this is exactly what the government did a few months ago, which is why pump prices were held constant despite soaring crude prices in the international markets. Unfortunately, the government has withdrawn this measure, which is one of the primary reasons WPI inflation has risen sharply.

(The authors are a part of the DevMac (Development Macroeconomics) network, which seeks pluralism in Economics)



- WPI inflation ~10% in June 2025 (Chart 1a).
- Surge driven mainly by fuel & power and manufactured products.
- Food inflation due to supply shocks like poor monsoons.



- Primary commodities: demand-determined (demand-pull).
- Manufactured commodities: cost-determined (cost-push).
- Kalecki's structural difference in pricing.



- Rise in fuel & power costs pushes up manufactured inflation.
- Strong one-to-one link between fuel & power and manufactured prices (Chart 2).
- Shows cost-push nature.



- Food inflation rises in drought years (Chart 3).
- El Niño → weak monsoon → lower farm output → higher food prices.
- Need climate-resilient agriculture & irrigation investment.



- Policy: Countercyclical indirect tax (customs & excise duty cuts) when crude prices rise.
- Helps control pump prices & curb inflation.
- Govt, withdrew this measure.



- Shift from inflation targeting to countercyclical tax policy.
- Decouple food prices from vagaries of nature.
- Long-term investment in irrigation & agri infrastructure.



- Cost-push inflation is key driver in India.
- Role of oil prices & monsoon shock critical.
- Policy focus: Tax management + Agri resilience.

BUILDING BLOCKS



Engineers get the train to float above the tracks using electromagnetic suspension. SPECIAL ARRANGEMENT

How magnetic levitation lifts and propels high-speed maglev trains

Maglev trains use powerful magnetic fields to move above the track without wheels, eliminating rolling friction, enabling speeds of over 400 km/hr; however, the technology requires dedicated guideways with precision engineering, making construction and operation expensive

Vasudevan Mukunth

Maglev' is a portmanteau of 'magnetic levitation'. Instead of running on wheels, maglev

technology uses strong magnetic fields to lift the train and move it forward. Since the train floats above the track, there is no rolling friction during normal operations, nor are operations affected by inclement weather, like rain or snow. The result: the train can move at extremely high speed, topping 400 km/hr, while also giving passengers a smooth ride.

How is a train lifted?

Nature has four fundamental forces: the two nuclear forces, the electromagnetic force, and gravity. Of them, gravity is the weakest by far – around 1039 times weaker than the electromagnetic force. This is why a small magnet can stay stuck to your fridge despite having the entire gravitational force of the earth pulling it down. The same idea applies to lifting a train weighing somewhere from 150 to 500 tonnes.

Engineers get the train to float above the tracks using electromagnetic suspension (EMS). The train has two 'arms' that wrap around the guideway over which it runs. Strong electromagnets on these arms point magnetic fields up towards the protruding parts of the guideway. Say you are lifting a bag with your hand. Your fingers wrap around the bag's strap. The train's arms do something like this – they wrap only just halfway, and from the bottom part, i.e., where the tip of your finger would be, exert a magnetic field into the underside of the strap. When these electromagnets are switched on, the train is lifted.

attracts them towards the guideway, i.e., your fingers would be attracted towards the strap. As a result, the train is pushed upwards. The train is fit with sensors that help it float around 10 mm above the guideway at all times.

In a closely related technology called electrodynamic suspension (EDS), there are superconducting magnets on the train that are cooled to a very low temperature. When the train moves, the magnets that move with it induce an electric current in coils built into the sides of the tracks. (The phenomenon is called electromagnetic induction.) The result is a repulsive force that pushes the train up. Since the magnets have to move to induce the current, the train often needs to be travelling at around 100 km/hr before the effect can kick in, and until then it uses wheels. The train also hovers higher above the track, at around 100 mm.

But in exchange for requiring wheels, EDS can support higher speeds. EMS systems operate at around or under 500 km/hr whereas the SCMagLEV EDS system in Japan achieved 603 km/hr during testing in 2015.

How does the train move forward?

The walls of the guideway are lined with coils that carry an alternating current (AC). This current creates a magnetic field that constantly shifts its poles (north to south) along the track. The magnets on the train are attracted to the 'opposite' pole ahead and repelled by the 'like' pole behind. As a result, the train is simultaneously pulled forward from the front and pushed forward from the back. And to make the train go faster, engineers just need to increase the frequency of the AC.

the direction of the magnetic field to slow the train or altogether stop it. This process may also use regenerative braking to divert the energy 'saved' by braking to the electricity grid.

If a fast-moving maglev train starts to drift, there are magnets on the sides that repel/attract accordingly to ensure it stays centered. For emergencies or when the magnetic braking fails, the system is also fit with friction brakes. They come in two forms, although there are other technologies as well. One: the maglev train is also fit with 'regular' auxiliary wheels, and these wheels have a braking system akin to those in other trains and cars. Two: braking pads between the guideway and the train apply friction to further slow it down.

What are the downsides of maglev?

The maglev system including the guideway cannot reuse existing guideways and stations vis-à-vis non-maglev trains. It needs its own. And this infrastructure is very expensive as the guideway needs to have magnets and coils with precision engineering.

The Shanghai Maglev, which was completed in 2004, cost ₹580 crore to ₹720 crore per kilometre (adjusted for inflation). This is excluding the cost of preparing the local terrain first – and operational costs like maintenance. Ergo, there needs to be very high and consistent passenger demand. Otherwise, the economics won't work out.

On the engineering front, while there is no rolling friction, a train moving very fast – especially over 300 km/hr – very experiences aerodynamic resistance due to the flow of air around the train's body. This is why maglev trains have streamlined designs. A lot of work also goes into reducing noise.



- Maglev = Magnetic + Levitation
- Train floats above track using magnetic fields
- No wheels during normal operation
- Eliminates rolling friction
- Enables speeds > 400 km/hr
- Provides smooth & quiet ride



- Lifted by Electromagnetic Suspension (EMS)
- "Arms" with electromagnets attract train towards guideway
- Train floats ~10 mm above guideway



- Electrodynamic Suspension (EDS) uses superconducting magnets
- Needs initial speed (~100 km/hr)
- Allows higher speeds
- Japan's SCMagLEV EDS reached 603 km/hr (2015)



- Propulsion via alternating magnetic fields in guideway
- Magnets on train pulled forward by opposite poles
- Speed controlled by changing AC frequency



- Braking by reversing magnetic field or using regenerative braking
- Stability ensured by side magnets
- Emergency braking via wheels or friction pads



- Needs dedicated guideways & stations
- Very high infrastructure cost (Shanghai Maglev: ₹580–720 crore/km)
- Viable only with high & consistent demand



- Engineering challenges: precision alignment, noise reduction, aerodynamic drag
- High maintenance & operational cost



UPSC RELEVANCE

- Science & Technology
- Infrastructure & Innovation
- Transport & Urban Development

1 कनाडा-भारत रक्षा सहयोग एक सुरक्षित भविष्य के लिए



- नई दिल्ली में कनाडाई रक्षा मंत्री डेविड मैकगिटी और रक्षामंत्री राजनाथ सिंह की मुलाकात हुई।
- दोनों ने बढ़ते भू-राजनीतिक तनावों के बीच रक्षा संबंधों को गहरा करने पर सहमति जताई।
- रक्षा उद्योग सहयोग, प्रौद्योगिकी साझेदारी और इंडो-पैसिफिक सुरक्षा पर चर्चा हुई।

- अभ्यास, प्रशिक्षण और सैन्य शिक्षा में सहयोग बढ़ाने पर जोर।
- दोनों देशों ने नियम-आधारित वैश्विक व्यवस्था के प्रति प्रतिबद्धता दोहराई।
- स्थायी और भरोसेमंद साझेदारी से सुरक्षित और समृद्ध भविष्य का लक्ष्य दोहराया गया।

GS II • IR • रक्षा सहयोग • कृत्नीति
इंडो-पैसिफिक • साझेदारी • वैश्विक व्यवस्था

2 कोर सेक्टर की वृद्धि पांच महीने के उच्च स्तर 5% पर



- जून 2025 में कोर सेक्टर की वृद्धि दर 5% रही, जो पांच महीने का उच्चतम स्तर है।
- वाणिज्य एवं उद्योग मंत्रालय ने संशोधित सूचकांक जारी किया।
- नया आधार वर्ष 2022-23, पहले 2011-12 था।
- लोहे के अयस्क को नया क्षेत्र जोड़कर कुल क्षेत्र 9 हुए।
- लोहे के अयस्क में 43.9% की वृद्धि (आंशिक आधार प्रभाव) रही।
- विजली, सीमेंट, स्टील और कोयला में क्रमशः 9.8%, 9.8%, 4.6% और 1.4% की वृद्धि हुई।

GS III • अर्थव्यवस्था • औद्योगिक उत्पादन
कोर सेक्टर • आधार वर्ष • विकास

3 भारत ने 4-60 वर्ष आयु वर्ग के लिए पहली डेंगू वैक्सीन को मंजूरी दी



- CDSCO ने TAK-003 वैक्सीन को 4-60 वर्ष आयु वर्ग के लिए मंजूरी दी।
- इसे भारत की पहली डेंगू वैक्सीन के रूप में मंजूरी मिली।
- इसे भारतीय कंपनी टेक्वाइन बायोलॉजिक्स ने विकसित किया है।
- यह किण्विमोड केसदित, निष्क्रिय डेंगू वैक्सीन है।
- 4 से 16 वर्ष के लिए 2 खुराक, 3 महीने के अंतराल पर दी जाएगी।
- 18 से 60 वर्ष के लिए 3 खुराक (0, 1 और 6 महीने) का शेड्यूल होगा।

GS III • स्वास्थ्य • जैव प्रौद्योगिकी
राष्ट्रीय स्वास्थ्य नीति • टीकाकरण

त्वरित समाचार (QUICK NEWS)

- 20% से आगे एथनॉल मिश्रण पर कोई फैसला नहीं: MoS हॉनररी राज्य मंत्री ने कहा- फिलहाल निर्णय नहीं लिया गया।
- मोदी ने संसद की महत्वपूर्ण भूमिला पर जोर दिया, MPs से जागरूक बहस की अपील की
- मानसून सत्र की तूफानी शुरुआत, विपक्ष के विरोध-प्रदर्शन के बीच
- नए यू.के. PM बर्नहम ने सामाजिक सुधार लाने का संकल्प लिया
- RBI विशेष स्वेप से 20 अरब डॉलर से अधिक का विदेशी प्रवाह
- जापान की सुजुकी की साधारण कारें भारत में कभी हावी थीं; अब ज्यादा फीचर्स की मांग पर R&D का विस्तार
- हुती विद्रोहियों ने रेड सी गेटवे पर सऊदी अरब की समुद्री नाकेबंदी की घोषणा की
- दक्षिण चीन सागर में मुठभेड़ पर चीन और फिलिपींस ने एक-दूसरे पर तीखे आरोप लगाए
- PayPal कैसे वॉल स्ट्रीट के चहेते से अनिच्छुक मर्जर टारगेट बन गया

4 भारत के हरित संक्रमण में लंबी अवधि ऊर्जा भंडारण की कमी



- भारत का नवीकरणीय लक्ष्य महत्वाकांक्षी है, पर LDES (लंबी अवधि ऊर्जा भंडारण) पर ध्यान अपर्याप्त है।
- सौर और पवन ऊर्जा का उत्पादन अस्थिर और अंतराल वाला है।
- भंडारण से आपूर्ति स्थिर और ग्रिड विद्युतसन्नीय बनता है।
- वर्तमान फोकस बैटरी भंडारण पर, जबकि LDES विकल्प महंगे और आरंभिक चरण में हैं।
- नीतिगत ढांचे, वित्तपोषण और R&D में सुदृढ़ सहयोग की आवश्यकता।
- LDES के बिना शुद्ध-सुन्य लक्ष्य, ग्रिड स्थिरता और ऊर्जा सुरक्षा कमजोर हो सकती है।

GS III • ऊर्जा • जलवायु परिवर्तन
हरित अर्थव्यवस्था • LDES • ऊर्जा सुरक्षा

5 सुरक्षा के साथ पारिस्थितिकी भी, सुंदरवन में बाड़ लगाने पर विचार : BSF



- BSF सुंदरवन में सीमा सुरक्षा हेतु बाड़ लगाने पर विचार कर रही है।
- उद्देश्य: चुसपेठ, तस्करी और अवैध गतिविधियों पर अंकुश।
- सुंदरवन एक संवेदनशील पारिस्थितिक क्षेत्र और यूनेस्को विश्व धरोहर स्थल है।
- बाड़ लगाने से वन्यजीव आवागमन और ज्वार-भाटा जल प्रवाह प्रभावित हो सकता है।
- पर्यावरणविदों ने पारिस्थितिकी और स्थानीय समुदायों पर प्रभाव को लेकर चिंता जताई।
- सुरक्षा आवश्यकताओं और पारिस्थितिकी संरक्षण में संतुलन बनाने की आवश्यकता।

GS III • पर्यावरण • जैव विविधता
सीमा सुरक्षा • सुंदरवन • सतत विकास

6 फुटपाथों को वापस रतलोको करें, शहरों को कारों से वापस लें



- भारतीय शहरों में फुटपाथ अतिक्रमण और अवैध पार्किंग से बाधित हैं।
- वस्स पैदल चलने वालों की सुरक्षा और पहुँच प्रभावित होती है।
- सुरक्षित, समावेशी और टिकाऊ शहरी गतिशीलता के लिए पैदल चलने को प्रोत्साहन जरूरी।
- बेहतर शहरी नियोजन, प्रवर्तन और सार्वजनिक भागीदारी की आवश्यकता।
- NMT (नॉन-मोटोराइज्ड ट्रांसपोर्ट), सार्वजनिक परिवहन और मिश्रित भूमि उपयोग पर जोर।
- लोगों के लिए शहर, न कि केवल कारों के लिए – लक्ष्य यही होना चाहिए।

GS II • शहरी शासन • सतत विकास
परिवहन • NMT • समावेशी शहर

7 भारत में महंगाई क्यों बढ़ रही है



- थोक मूल्य सूचकांक (WPI) महंगाई जून में लगभग 10% के पास रही।
- ईंधन और ऊर्जा कीमतों में वृद्धि प्रमुख कारण।
- औद्योगिक कच्चे माल और निर्मित उत्पादों की कीमतों में भी इजाफा।
- वैश्विक वस्तु कीमतें, आपूर्ति बाधाएँ और भू-राजनीतिक तनाव का प्रभाव।
- कृषि आपूर्ति में व्यवधान और मानसून अनिश्चितता का असर।
- खाद्य कीमतों का दबाव उपभोक्ता महंगाई (CPI) को भी प्रभावित कर सकता है।

GS III • मैक्रो अर्थव्यवस्था • मुद्रास्फीति
WPI • CPI • आपूर्ति • वैश्विक कारक

8 चुंबकीय उत्थापन उच्च गति मैगलेव ट्रेनों को कैसे उठाता और चलाता है



- मैगलेव ट्रेन चुंबकीय बल से पटरियों के ऊपर उठती (levitate) है।
- इलेक्ट्रोमैग्नेट और सुपरकंडक्टिंग मैगलेट का उपयोग होता है।
- आकर्षण या प्रतिकर्षण बल से मार्गदर्शन और स्थिरता सुनिश्चित होती है।
- लाइनियर मोटर ट्रेन को आगे बढ़ाती है; पहियों की आवश्यकता नहीं होती।
- चर्चण लगभग शून्य होने से ट्रेनें बहुत उच्च गति (500+ किमी/घंटा) तक पहुँचती हैं।
- जापान (लिंकनसेन मैगलेव) और चीन में परीक्षण एवं याणिज्जिक परियोजनाएँ प्रगति पर।

GS III • विज्ञान एवं प्रौद्योगिकी • परिवहन
मैगलेव • चुंबकत्व • उच्च गति रेल

9 टोरेस हीरो बने, स्पेनिश आर्माडा ने अर्जेन्टीना को हराया



- फीफा U-20 विश्व कप 2025 फाइनल में स्पेन ने अर्जेन्टीना को हराया।
- मैच का हीरो मैक्सिमो टोरेस रहे।
- स्पेन ने मजबूत टीम प्रदर्शन और रणनीति दिखाई।
- टोरेस ने निर्णायक गोल और असिस्ट से जीत में अहम भूमिका निभाई।
- यह स्पेन का रिकॉर्ड छठा U-20 विश्व कप खिताब है।
- टूर्नामेंट में स्पेन की तकनीक, नियंत्रण और अनुशासन स्पष्ट दिखा।

GS II • खेल • अंतरराष्ट्रीय आयोजन
फीफा U-20 विश्व कप • खेल भावना

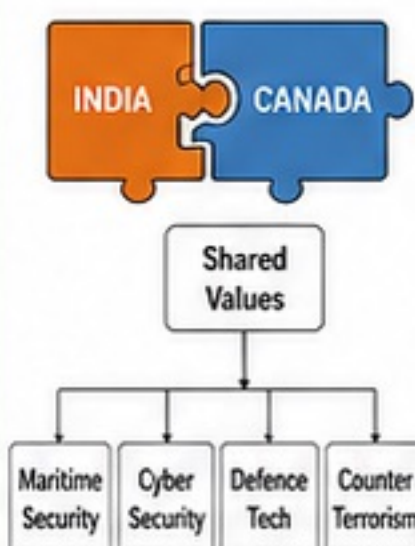
प्रिलिम्स तथ्य (PRELIMS FACTS)

- ब्रह्मापुत्र नदी: तिब्बत में यारलुंग त्सांगपो; भारत में अरुणाचल से असम में प्रवेश।
- वर् (संरक्षण) अधिनियम, 1980: वनों के संरक्षण और गैर-वन उपयोग पर नियंत्रण।
- राजकोपीय उत्तरदायित्व और बजट प्रबंधन (FRBM) अधिनियम, 2003: राजकोपीय अनुशासन हेतु।
- पीएम फसल बीमा योजना (PMFBY): फसल जोखिम कवरेज और किसानों की सुरक्षा।
- CRISPR-Cas9: जीन संपादन तकनीक; सटीक और कुशल।
- 73वां संविधान संशोधन, 1992: पंचायती राज संस्थाओं को संवैधानिक दर्जा।
- SAARC (द. एशियाई क्षेत्रीय सहयोग संगठन): स्थापना 1985 में काठमांडू में।
- अरावली पर्वतमाला: भारत में प्राचीनतम; दिल्ली से गुजरात तक विस्तृत।
- Sustainable Development Report 2024: भारत रैंक 110/167; SDGs प्रगति मापने वाली रिपोर्ट।

शब्दावली (VOCABULARY)

- सुदृढ़ — मजबूत या अधिक सशक्त बनाना
- अनुप्रस्थ — अनुपातहीन, असंगत या असंतुलित
- दूरदर्शिता — दूर की सोच; दूरदृष्टि
- समावेशी — जिसमें सभी को शामिल किया जाए
- उत्तरदायित्व — जवाबदेही; जिम्मेदारी लेने की क्षमता

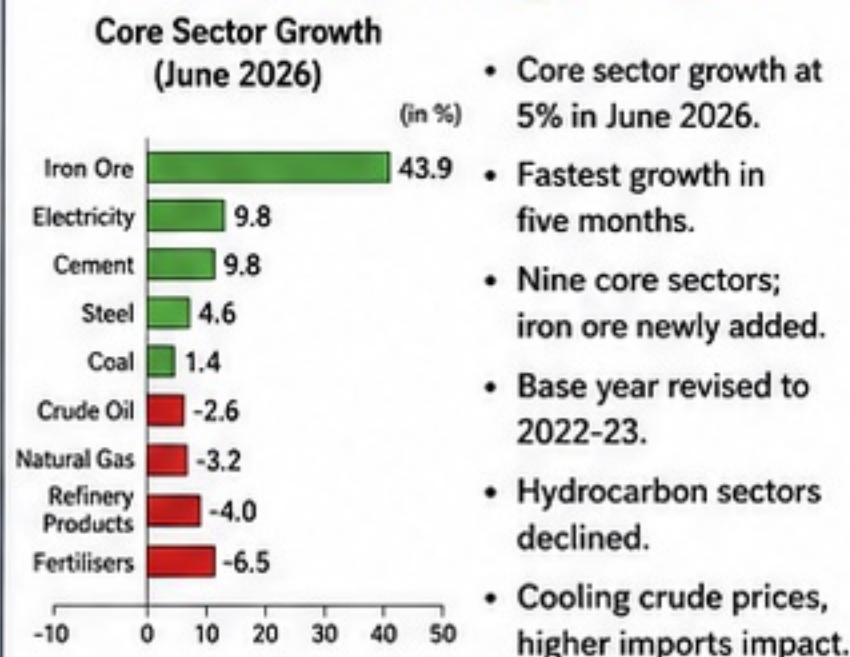
1. Canada–India Defence Collaboration



- Ties strained by political tensions.
- Complementary strengths in defence, tech & maritime.
- Cooperation vital for Indo-Pacific stability.
- Areas: cyber, AI, space, Arctic, intelligence.
- Resume defence dialogues & military exchanges.
- Promote defence industrial partnerships.

GS II – International Relations
Indo-Pacific • Security • Strategic Partnership

2. Core Sectors Grow at Five-Month High of 5%



GS III – Economy
Index of Core Industries • Industrial Growth

3. First Dengue Vaccine Approved in India

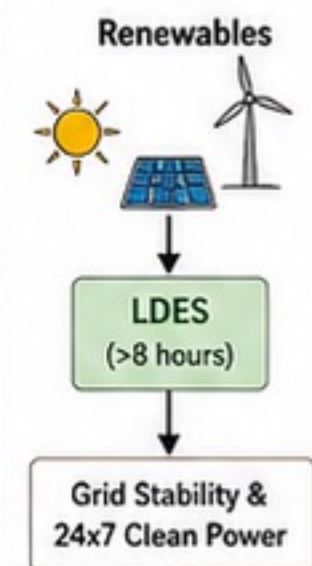


QDenga (TAK-003)
Approved for 4–60 years

- DCGI approves QDenga (TAK-003).
- First dengue vaccine in India.
- Approved for persons aged 4–60 years.
- Protects against dengue caused by 4 serotypes.
- Spread by *Aedes aegypti* mosquito.
- Prevention: vector control, cleanliness & vaccine.

GS III – Health
Vector Borne Diseases • Immunisation • NCVBDC

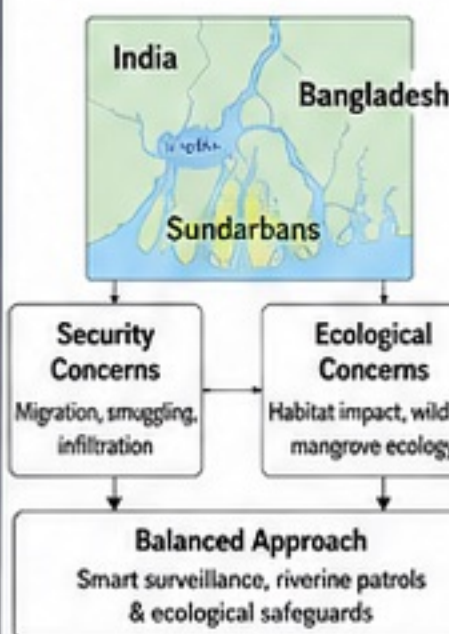
4. India's Green Transition Missing Long-Duration Storage



- Renewables are intermittent (solar & wind).
- Current storage offers only 2–4 hours.
- Need long-duration storage (>8 hours).
- Ensures grid stability & reliable supply.
- Tech: PSH, CAES, flow batteries, hydrogen.
- Clear policies & market needed for scale-up.

GS III – Energy
Renewables • LDES • Grid Stability • Energy Security

5. Security Meets Ecology: Fence in Sundarbans?



- BSF mulls fencing in vulnerable stretches.
- Sundarbans: difficult terrain, many creeks & islands.
- Security issues: migration, smuggling, trafficking.
- Ecological risks: habitat & biodiversity impact.
- Use smart surveillance & riverine patrols.

GS III – Internal Security & Environment
Borders • Sundarbans • Biodiversity • Sustainability

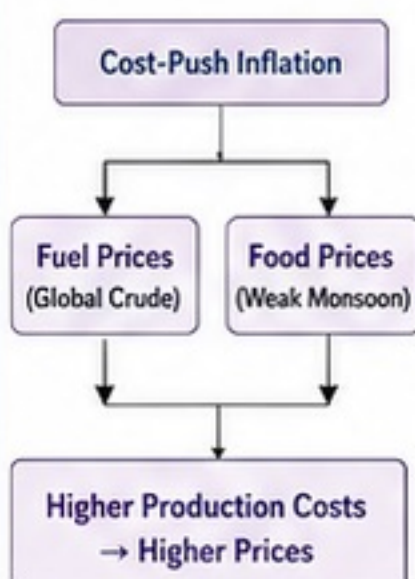
6. Reclaiming Footpaths, Taking Cities Back from Cars



- Cities are car-centric; footpaths neglected.
- Encroachments, poor maintenance common.
- Walking most used mode for many.
- Improves safety, health & inclusivity.
- Initiatives: Smart Cities, AMRUT, TOD.
- Need universal design & strict enforcement.

GS III – Urban Governance
Sustainable Cities • Walkability • Inclusion

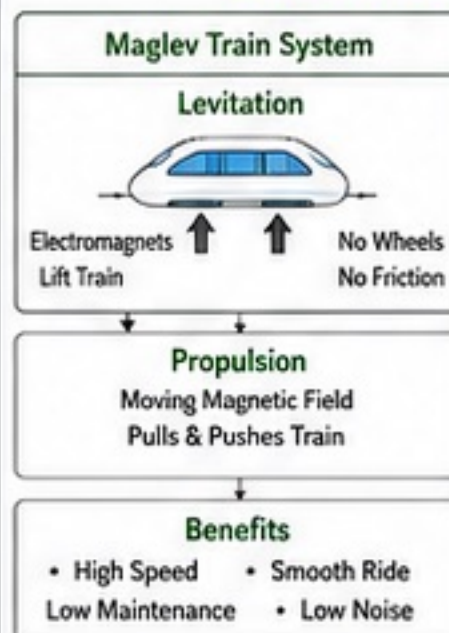
7. Why Inflation is Rising in India



- WPI inflation near 10% in June.
- Driven by fuel, power & manufactured goods.
- Food inflation due to weak monsoon (El Niño).
- Cost-push, not demand-pull inflation.
- Solutions: irrigation expansion.
- Use counter-cyclical taxes to check fuel prices.

GS III – Economy
Inflation • WPI • CPI • Fiscal Policy

8. How Maglev Trains Lift and Propel



- Maglev trains float above the track.
- Use magnetic levitation (EMS/EDS).
- No wheels; minimal friction.
- Propelled by moving magnetic field.
- Speeds exceed 400 km/h.
- High cost; dedicated guideways needed.

GS III – Science & Technology
Maglev • Electromagnetism • High-Speed Rail

9. Torres the Hero as Spain Sinks Argentina



- Spain beat Argentina 1–0 in World Cup Final.
- Torres scored the winning goal.
- Spain lifted second World Cup.
- First title in 2010.
- Major international football event.
- Global sporting significance.

GS I – Sports
FIFA • Football • International Event

QUICK NEWS

- No decision on ethanol blending beyond 20%**
Govt. says no decision to raise ethanol blending above 20%.
- Modi stresses vital role of Parliament**
PM urges MPs to engage in informed & constructive debate.
- Monsoon Session off to stormy start**
Opposition protests disrupt both Houses on first day.
- New U.K. PM Andrew Burnham**
Burnham vows social reforms & greater devolution.
- RBI special swap sees over \$20 bn inflow**
\$20.72 bn received under RBI's swap facility as on July 17.
- Suzuki expands R&D in India**
Suzuki to expand R&D as buyers demand more features.
- Houthi declare maritime blockade of Saudi Arabia**
Houthi announce blockade of Saudi Arabia at Red Sea gateway.
- China, Philippines trade barbs in South China Sea**
Both countries blame each other for recent maritime encounter.
- How PayPal went from favourite to merger target**
PayPal faces merger speculation amid market challenges.

PRELIM FACTS

- Sundarbans**
Largest mangrove forest; India-B'desh. UNESCO World Heritage Site.
- Index of Core Industries**
Measures output of 9 core sectors; Base year 2022–23.
- LDES**
Long-duration energy storage; >8 hours of storage.
- QDenga Vaccine**
India's first dengue vaccine; Approved for 4–60 years.
- Maglev Train**
Magnetic levitation; no wheels; Speeds >400 km/h.
- El Niño**
Warm phase of ENSO; affects monsoon & agriculture.
- RBI Swap Facility**
Allows foreign currency inflows; Supports overseas fundraising.
- Aedes aegypti**
Mosquito vector of dengue, Zika & chikungunya.
- FIFA**
International football body; Headquarters in Zurich, Switzerland.

VOCABULARY

- Resilience** – Capacity to recover quickly from difficulties.
- Mitigate** – To reduce the severity or intensity of something.
- Intermittent** – Occurring at irregular intervals.
- Devolve** – To transfer power or responsibility to a lower level.
- Equilibrium** – A state of balance or stability.