India records 8.2% GDP growth in Q2, highest in six quarters

Why is this in News?

India's economy expanded by **8.2% in Q2 (July–September) FY26**, marking the **best performance in a year and a half**.
This pace exceeds both **Q1 FY26 (7.8%)** and **Q2 FY25 (5.6%)**, as per MOSPI's release.

The announcement follows soon after the IMF assigned India's national accounts a **'C' grade**, citing issues with statistical methodology and data reliability.

Nominal GDP increased by only **8.7%**, far below the **10.1% assumption** in the Union Budget, raising concerns about fiscal consolidation.

Relevance

GS 3 – Economy

- Differences between real & nominal GDP, reading the GDP deflator, inflation interpretation.
- Fiscal policy challenges when nominal GDP slows, affecting deficit calculations.
- Investment patterns: GFCF movement, PLI-supported sectors, divergence between public and private capex.
- External sector dynamics: export performance and global economic conditions.
- Monetary policy decision-making in a low-inflation, high-real-growth environment.
- Data integrity: IMF's observations on the outdated base year and deflator composition.

GS 2 – Governance

- Policy performance: evaluating manufacturing incentives and government capex.
- Connections to fiscal strategy and administrative planning.

Basics

Real GDP

- Adjusted for price changes.
- Reflects the true growth in output.
- Recorded at **8.2%** for India.

Nominal GDP

- Calculated at prevailing prices, includes inflation.
- Grew **8.7%**, indicating subdued inflation and lower pricing power.

GDP Deflator

- Ratio of nominal to real GDP.
- Presently low because of declines in manufacturing and commodity prices.
- IMF and economists argue that the **WPI-skewed deflator underestimates service inflation**, inflating real GDP artificially.

Drivers of the 8.2% Growth

Manufacturing

A strong revival backed by:

- Cheaper inputs
- PLI-based capacity building
- Growth in electronics, auto components, pharmaceuticals

Services

- Expansion led by IT, finance, real estate, logistics
- Consumption-oriented services showing a steady comeback

Investment

- GFCF rising, signalling ongoing investment momentum
- Public sector remains the dominant driver; private investment improving slowly

Agriculture

- Dampened output due to an erratic monsoon and the lingering effects of El Niño

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Key Concerns

1. Low Nominal GDP (8.7%)

When nominal growth barely exceeds real growth, the deflator becomes abnormally small.

Scholars argue:

- Real GDP may be **overstated**, masking sluggish underlying activity
- Manufacturing disinflation artificially elevates real growth figures

2. Fiscal Deficit Stress

Budget estimates assumed **10.1%** nominal growth.
Slower nominal expansion → worsened deficit-to-GDP ratios.

3. Data Quality Issues

IMF's 'C' grade (second-lowest) flags:

- Base year of 2011–12 now outdated

- Mismatches between expenditure-side and production-side GDP
- Over-reliance on WPI in deflator for a services-heavy economy

4. Uneven Recovery

- Weak consumption in lower-income groups
- Rural distress indicated by slow FMCG sales, higher MGNREGA usage, declining diesel consumption
- Softening credit demand among MSMEs

Scholarly Opinions

Upasna Bhardwaj (Kotak)

- Real growth inflated by deflator distortions
- Nominal GDP signals underlying economic fragility

Madan Sabnavis (Bank of Baroda)

- Weak nominal growth complicates meeting the **4.4% fiscal deficit** target

IMF's Article IV

- Data limitations restricting effective monitoring
- Calls for updated base year and service-focused price measurement

Government's Stand

- PM highlights growth as an outcome of reforms, strong capex, and robust manufacturing-services expansion.

Structural Drivers of High Real GDP

- Corporate profits-to-GDP near historic highs
- Expansion of formal sector activity
- PLI strengthening manufacturing competitiveness
- Public capex sustaining investment cycles
- Digital infrastructure improving efficiency

Macro Implications

Monetary Policy

- Low inflation + high real growth complicates policy calibration
- Deflator–growth divergence affects interpretation

External Sector

- Strong services exports
- Manufacturing exports depressed by global uncertainty

Labour Market

- Urban unemployment declining
- Rural labour markets remain stressed

Outlook for First Half of FY26

H1 FY26 logged **8% growth**, keeping India the **fastest-growing major economy** globally.

Kerala's Population to Grow till 2041, Then Decline

Why is this in News?

The report **"Unravelling India's Demographic Future (2021–2051)"** by IIMAD and PFI — led by Prof. S. Irudaya Rajan and J. Retnakumar — presents detailed demographic projections.

It identifies Kerala as India's **oldest state** through 2051, marked by:

- Persistent ultra-low fertility
- Accelerated ageing
- Near-total urbanisation

The findings are derived using the **Cohort Component Method**.

Relevance

GS 1 – Society

- Population ageing, TFR changes, demographic transition
- Urbanisation pressures, migration trends

GS 2 – Governance

- Elderly welfare, healthcare planning, pensions
- Labour-force management and skill policy
- Migration and workforce renewal

Key Concepts

TFR

- Replacement level ≈ 2.1
- Kerala expected to decline to **1.4** by 2051 → entrenched ageing

Life Expectancy

- From **75.1 years (2026)** to **82.9 years (2051)**

Median Age

- Rising from **37 to 47 years** → deep ageing

Old-Age Dependency

- Ratio set to surge as working-age population shrinks

Cohort Component Method

- Standard demographic modelling using fertility, mortality, migration

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Kerala's Population Path: 2021–2051

Size

- 2011: 3.34 crore
- 2026: 3.58 crore
- 2041: **Peak at 3.62 crore**
- 2051: declines to 3.55 crore

Kerala enters a **post-mature demographic phase**.

Ageing Profile

60+ Share

- 2026: 18.6%
- 2051: 30.6% (~1 in 3 residents)

80+ Segment

- 2021: 2%
- 2051: 6.4% (highest nationally)

Children (0–14)

- Already India's lowest at 19.3% (2021)
- Drops further by 2051

Comparative Picture

Bihar

- Remains India's youngest state
- 0–14 population in 2051: 22.6%
- Kerala: 12.8%

Urbanisation

- 2011: 47.7% urban
- 2051: **91.1% urban**
  Driven by migration, fertility decline, and service-led economy.

Data Sources

Census 2011, NFHS, SRS, CRS, NSS.

Why Kerala Ages So Fast?

- Very low fertility linked to education, urban lifestyle, cost of raising children
- Excellent healthcare extending life expectancy
- Heavy out-migration of young workforce

Challenges

Economic

- Labour shortages
- Higher pension liabilities
- Rising healthcare burden

Social

- Growing elderly-alone households
- Feminisation of ageing

Fiscal

- Social security needs escalate
- Dependence on migrant labour rises

Opportunities

- Growth in silver economy
- Strong human capital → innovation-driven sectors

- Automation offsets labour decline

Policy Recommendations

Near-Term

- Strengthen geriatric and palliative care
- Encourage women's workforce entry
- Promote active ageing

Long-Term

- Managed immigration
- Urban planning for hyper-urbanisation
- Productivity gains via automation & AI

Scholars emphasise that Kerala resembles European ageing patterns **without equivalent economic cushioning**, demanding creative policy interventions.

NISAR Satellite Begins Full Science Operations

Why is this in News?

ISRO confirmed that **NISAR**, launched in July 2025, has transitioned into its **full science mission stage**.

Key updates:

- S-band radar is routinely imaging India
- 12-m reflector deployed successfully
- Orbit maintenance and calibration activities underway

A separate news event involving Y.V. Subba Reddy is unrelated to the ISRO update.

Relevance

GS 3 – Science & Tech

- Dual-frequency SAR, antenna technology, Earth observation
- Uses in disaster response, agriculture, hydrology, climate science

GS 2 – International Relations

- India–US technological cooperation

What is NISAR?

A **NASA–ISRO joint mission** using **dual-frequency synthetic aperture radar** (L-band + S-band) — the first of its kind.

Key Details

- L-band: NASA; penetrates vegetation, soil
- S-band: ISRO; monitors deformation, crops
- Orbit: 747 km sun-synchronous
- Mission span: 5 years

The 12-m reflector enables high-resolution, broad-coverage imaging, functional in all weather conditions.

Mission Phases

1. Launch
2. Deployment
3. Commissioning
4. **Science Phase (current)**

Applications

Climate

- Glacial flow
- Ice-sheet dynamics
- Sea-level modelling

Disasters

- Earthquake deformation
- Landslides
- Flood mapping
- Cyclone damage

Agriculture

- Crop health
- Soil moisture
- Insurance verification

Forests

- Biomass

- Deforestation tracking

Infrastructure

- Subsidence
- Urban expansion

Water Resources

- Wetlands
- River morphology

Importance for India

- Strengthens indigenous Earth observation
- Enhances climate and tectonic models
- Supports precision farming and policy planning
- Boosts India's standing in space diplomacy

WHO Releases First Global Guideline on Infertility Care

Why is this in News?

WHO unveiled its inaugural global standard for infertility management, featuring **40 recommendations** on prevention, diagnosis, treatment, affordability, and system integration.

The guideline responds to rising global infertility and restricted access due to affordability issues.

Relevance

GS 2 – Health Governance

- Infertility as a health condition
- Insurance-backed reproductive care
- Regulation under ART and Surrogacy Acts

GS 1 – Society

- Gendered stigma
- Social and emotional consequences

Infertility (WHO Definition)

Inability to conceive after **12 months** of unprotected intercourse.

Prevalence

1 in 6 individuals globally.

Types

- Primary
- Secondary

Why These Guidelines Now?

Rising Infertility

Driven by delayed parenthood, lifestyle factors, STIs, environmental exposure.

High Financial Burden

IVF can cost **twice annual household income** in certain regions.

No Standardised Protocols

Large variation across countries.

Mental Health Toll

Infertility linked to major psychological distress.

Key Elements of the Guidelines

1. Prevention

- Address lifestyle & medical risk factors
- Promote reproductive health education

2. Diagnosis

- Encourage low-cost diagnostics
- Clear referral pathways

3. Treatment

- Stepwise approach: basic → IUI → IVF/ICSI
- Emphasis on safety and evidence

4. Financial Protection

- Integrate infertility services into insurance and public health systems

5. Psychosocial Support

- Counselling for couples

6. Local Adaptation

- Countries to customise guidelines

Barriers Identified

- Excessive cost
- Urban concentration of services
- Gender bias in blame
- Weak regulation

Significance

- Recognises infertility as a legitimate health issue
- Supports gender-neutral care
- Reduces catastrophic expenditure
- Helps LMICs scale cost-effective infertility services

India's Situation

- ~27.5 million couples affected
- Rising due to PCOS, obesity, late marriage
- ART costly; limited public options
- Need for affordable, standardised protocols

WHO guidelines could support broader public fertility care and insurance-backed ART.

CPCB Flags Heavy Metal Pollution in Delhi's Groundwater

Why is this in News?

CPCB's 2024 report reveals:

- Delhi ranks **third nationally** in uranium contamination
- Significant breaches of permissible limits for EC, fluoride, nitrate, arsenic, iron, and lead
- Borewell-dependent areas most affected

This raises major public health alarms.

Relevance

GS 3 – Environment

- Aquifer contamination, heavy metals, salinity

- Effect on agriculture, soil health

GS 2 – Governance

- Regulation of groundwater, effluent controls
- Urban water management

What is Groundwater Contamination?

Pollutants enter aquifers from:

- Natural geological sources
- Industrial discharge
- Sewage
- Fertiliser runoff

Measured by EC, SAR, RSC, and metal concentrations.

Key Findings

1. Uranium

- Limit: 0.03 mg/L
- Delhi exceedance: 12.4%
- Highest levels in Najafgarh and Yamuna floodplain

2. EC

- Exceeded in 33.3% samples → high salinity

3. SAR

- Extremely high, up to 178.9
- Nearly half the samples above standards

4. RSC

- 51.1% exceedance → worst nationally

5. Heavy Metals

- Fluoride: 17.8%
- Iron: 8.9%
- Lead: 3.7%
- Nitrate: 4.4%

Why Is This Happening?

- Over-extraction causing saline intrusion
- Industrial & sewage infiltration
- Naturally uranium-bearing formations
- Reduced recharge due to urbanisation

Health Hazards

Uranium

Kidney damage, cancer risk.

Nitrate

Blue baby syndrome.

Fluoride

Skeletal & dental fluorosis.

Lead

Cognitive impairment.

Iron

Supports harmful bacterial growth.

High Salinity

Hypertension, unfit for consumption.

SAR/RSC

Soil destruction & crop failure.

Environmental Impact

- Irrigation unsuitability
- Soil sodicity
- Declining productivity
- Potential irreversible aquifer decline

Bharat NCAP 2.0 Released

Why is this in News?

MoRTH issued a revised draft of Bharat NCAP, upgrading and broadening crash-testing norms.
It introduces new mandatory tests, shifts scoring weights, and incorporates protection for pedestrians—who account for over 20% of India's road deaths.

Relevance

GS 3 – Infrastructure

- Vehicle safety standards
- Use of ADAS and crash-test technology

GS 2 – Governance

- Regulatory design, consumer awareness

What is Bharat NCAP?

India's voluntary vehicle safety rating programme (launched 2023).
Conducted by CIRT, Pune.

Previous Testing Regime

Three areas:

- Adult protection
- Child protection
- Safety assist

Three tests:

- Frontal (64 km/h)
- Side (50 km/h)
- Pole impact (29 km/h)

What's New in Bharat NCAP 2.0?

1. Expanded Scope

Five assessment areas:

- Safe driving
- Accident avoidance
- Crash protection
- Vulnerable Road User (VRU) safety
- Post-crash protection

2. More Mandatory Tests

Now five:

- 64 km/h frontal
- 50 km/h side
- 32 km/h mobile barrier
- 32 km/h pole
- 50 km/h full-width rigid barrier

3. New Safety Domains

- Advanced safety assist tech
- Dedicated VRU protection category
- Post-crash safety evaluation

4. Revised Scoring

- 5-star now requires ≥65 points
- AOP must be ≥55% of crash protection
- Lower thresholds for 1–3 stars reorganised

5. Improved Crash Dummies

Including advanced ATDs for children & rear passengers

6. Pedestrian Protection Added

- Headform tests
- Leg impact tests
- Bonnet & bumper energy tests

Why It Matters

- Pushes automakers toward safer designs
- Enhances pedestrian protection
- Aligns India closer with international NCAP systems
- Increases consumer influence over car safety

Challenges

- Still voluntary → coverage gaps
- Cost inflation for carmakers
- Price pressure on small-car segment

01st December 2025: Daily MCQs

Q1. With reference to India's recent GDP performance and data concerns, consider the following statements:

1. When real GDP growth exceeds nominal GDP growth, the GDP deflator is likely to be very low.
2. A WPI-heavy GDP deflator in a services-dominant economy can lead to overestimation of real GDP growth.
3. Lower-than-budgeted nominal GDP growth tends to reduce the fiscal deficit-to-GDP ratio automatically.
4. A 'C' grade by the IMF on national accounts implies "no significant shortcomings in data quality."

How many of the above statements are **correct**?

(a) Only one
(b) Only two
(c) Only three
(d) All four

Answer: (b) Only two

Explanation:

- **Statement 1 – Correct:** If real GDP is higher than nominal GDP growth, the implied deflator is abnormally low.
- **Statement 2 – Correct:** Understated services inflation in a WPI-heavy deflator can inflate real GDP artificially.
- **Statement 3 – Incorrect:** Lower nominal GDP makes the *denominator* smaller, generally **worsening** the fiscal deficit ratio (if absolute deficit doesn't fall proportionately).
- **Statement 4 – Incorrect:** IMF's **'C' grade** indicates *"shortcomings that hamper surveillance"*, not "no significant shortcomings".

Q2. Regarding Kerala's demographic future as projected in "Unravelling India's Demographic Future (2021–2051)", consider the following statements:

1. Kerala's population is projected to peak around 2041 and then start declining.
2. By 2051, nearly one-third of Kerala's population is expected to be aged 60 years or above.
3. Kerala's Total Fertility Rate (TFR) is expected to move back to replacement level by 2051.
4. By 2051, Kerala is projected to be over 90% urban.

Which of the above statements are **correct**?

(a) 1 and 2 only
(b) 1, 2 and 4 only

(c) 3 and 4 only
(d) 1, 2, 3 and 4

Answer: (b) 1, 2 and 4 only

Explanation:

- **1 – Correct:** Population peaks around **2041** and then declines by 2051.
- **2 – Correct:** 60+ population projected at about **30.6%** (≈ one-third).
- **3 – Incorrect:** TFR is projected to fall to about **1.4**, *well below* replacement, not return to it.
- **4 – Correct:** Urban share projected to be about **91.1%** by 2051.

Q3. With reference to the NISAR mission, consider the following statements:

1. NISAR is the world's first dual-frequency Synthetic Aperture Radar (SAR) satellite using both L-band and S-band.
2. The L-band SAR on NISAR is provided by ISRO, while the S-band SAR is provided by NASA.
3. NISAR operates in a sun-synchronous orbit and can provide all-weather, day-night imaging.
4. One of its important roles is monitoring ice-sheet dynamics and land subsidence.

How many of the above statements are **correct**?

(a) Only two
(b) Only three
(c) All four
(d) Only one

Answer: (b) Only three

Explanation:

- **1 – Correct:** NISAR is indeed the **first dual-frequency SAR (L + S)** EO satellite.
- **2 – Incorrect:** It is the **reverse** – L-band from **NASA**, S-band from **ISRO**.
- **3 – Correct:** It is in a near-polar sun-synchronous orbit and SAR allows all-weather, day-night imaging.
- **4 – Correct:** Key uses include **ice-sheet movement** and **subsidence** monitoring, among others.

Q4. Regarding WHO's first global guideline on infertility, consider the following statements:

1. Infertility is defined by WHO as failure to achieve pregnancy after at least 24 months of regular unprotected sexual intercourse.

2. The guideline recommends integrating infertility services into national health strategies and financial protection mechanisms.
3. WHO highlights that infertility care is often associated with catastrophic health expenditure for households.
4. The guideline focuses exclusively on advanced technologies like IVF and ICSI, discouraging low-cost diagnostic and preventive approaches.

Which of the statements given above are **correct**?

(a) 2 and 3 only
(b) 1 and 4 only
(c) 1, 2 and 3 only
(d) 2, 3 and 4 only

Answer: (a) 2 and 3 only

Explanation:

- **1 – Incorrect:** WHO definition is usually **12 months or more**, not 24 months.
- **2 – Correct:** It stresses **integration into health systems and insurance/financial protection**.
- **3 – Correct:** WHO flags **catastrophic expenditure**, especially for IVF.
- **4 – Incorrect:** The guideline emphasises a **stepwise, cost-effective approach**, including prevention and basic diagnostics, not only advanced IVF/ICSI.

Q5. Consider the following pairs:

List I (Issue/Concept) List II (Associated Indicator/Feature in the news)

1. Groundwater salinity and sodicity in Delhi | (A) SAR and RSC values
2. Uranium contamination in aquifers | (B) Nephrotoxicity and increased cancer risk
3. Bharat NCAP 2.0 | (C) Vulnerable Road User (VRU) protection vertical
4. GDP data quality debate | (D) WPI-heavy GDP deflator

Which of the following correctly matches **all four** pairs?

(a) 1–A, 2–B, 3–C, 4–D
(b) 1–B, 2–A, 3–C, 4–D
(c) 1–A, 2–C, 3–B, 4–D
(d) 1–D, 2–B, 3–A, 4–C

Answer: (a) 1–A, 2–B, 3–C, 4–D

Explanation:

- **1 → A:** Groundwater salinity/sodicity assessed via **SAR & RSC**.
- **2 → B:** Uranium linked with **kidney damage and higher cancer risk**.

- **3 → C:** Bharat NCAP 2.0 introduces a dedicated **VRU Protection** vertical.
- **4 → D:** Data quality debate focuses on **WPI-heavy GDP deflator** understating service inflation.

Mains: Kerala is projected to become India's oldest State by 2051, with very low fertility, high life expectancy, and over 90% urbanisation. Examine the economic, social, and fiscal challenges arising from such a demographic profile. Also suggest policy measures to harness opportunities associated with the "silver economy" while ensuring sustainable welfare for the elderly.