



VAJIRAM & RAVI
Institute for IAS Examination

The Analyst

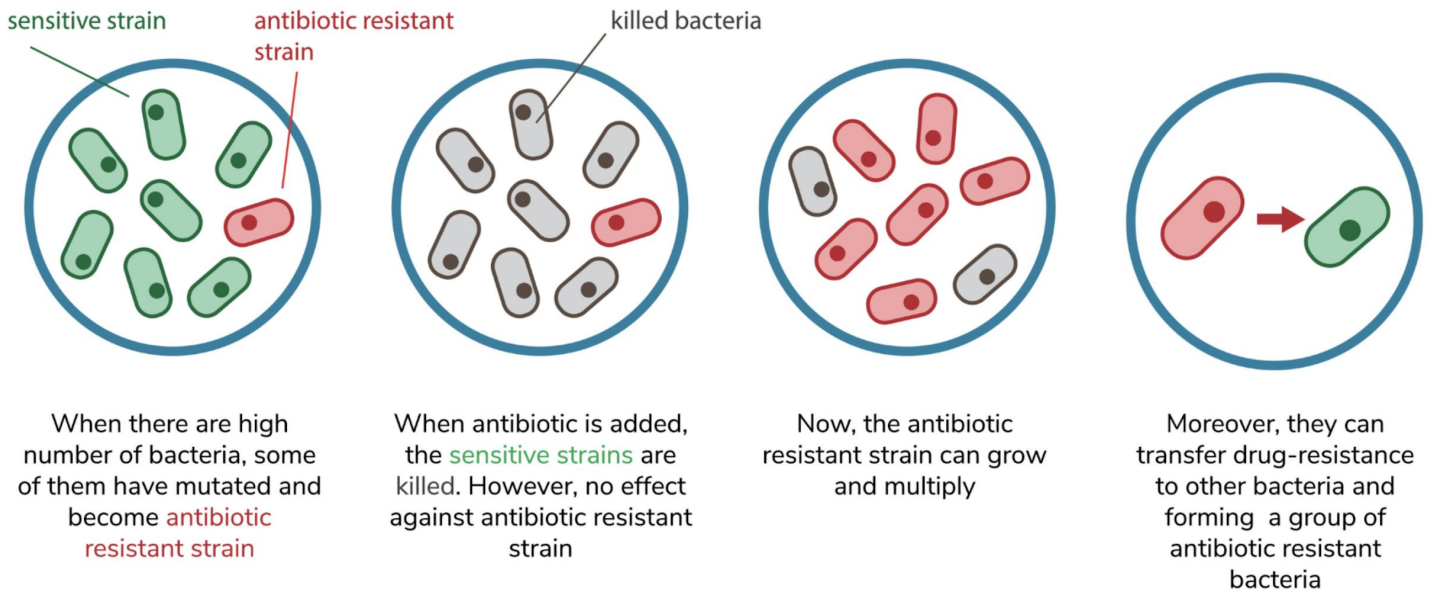
CURRENT AFFAIRS Handout

8th January 2026



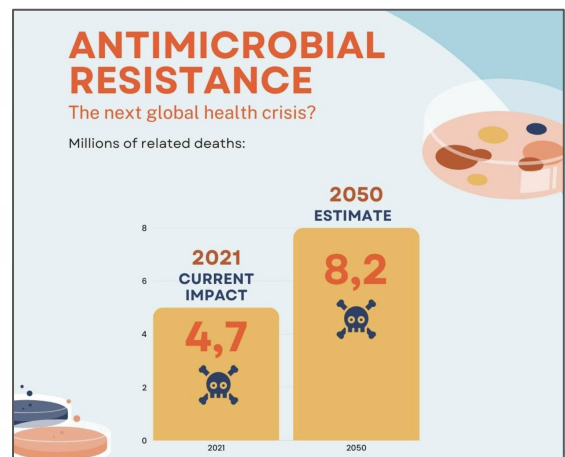
India's Battle against Antimicrobial Resistance

CONTEXT: The 'Mann Ki Baat' of December 2025 mentioned AMR as matter of concern. Due to indiscriminate use of antibiotics, they are proving to be less effective against pneumonia and urinary tract infections.

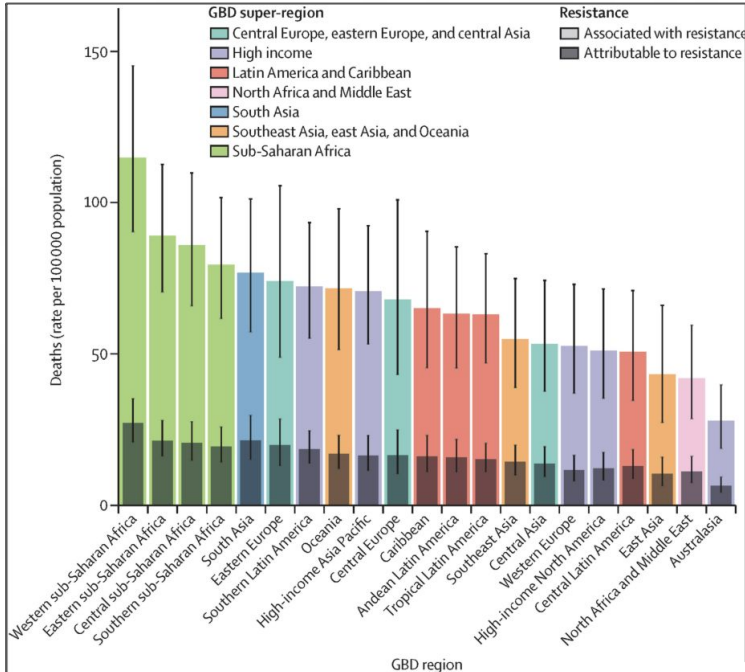


- **Antimicrobials** – including antibiotics, antivirals, antifungals, and antiparasitic
- **Antimicrobial Resistance (AMR)** – no response to antimicrobial medicines.
- As a result these **drugs become ineffective** and **infections become difficult or impossible to treat**
- AMR is a **natural process** that happens over time through genetic changes in pathogens.
- Its emergence and spread is **accelerated by human activity**.
 - Antimicrobial resistance (AMR) is one of the top global public health and development threats.
- It is estimated that bacterial AMR was directly responsible for 1.27 million global deaths in 2019 and contributed to 4.95 million deaths (WHO)

- **ICMR AMR Surveillance Network (AMRSN)**
 - **Increasing resistance to major antibiotics** used in treating common infections. For example:
 - Resistance of E. coli to **imipenem** increased from ~14% in 2016 to ~36% in 2021.
 - Many **routine antibiotics are becoming ineffective**, highlighting the growth of “superbugs” in India.



CONTEXT: The 'Mann Ki Baat' of December 2025 mentioned AMR as matter of concern. Due to indiscriminate use of antibiotics, they are proving to be less effective against pneumonia and urinary tract infections.



Mainstreaming the subject

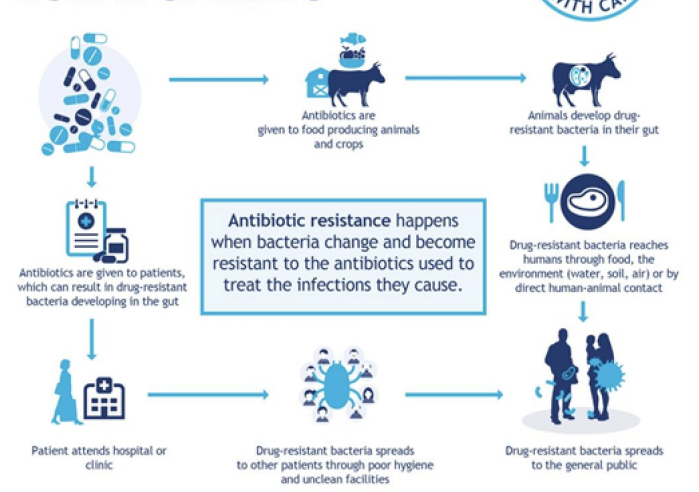
It is, by now, common knowledge that while there are many prongs that contribute to the galloping AMR in the country, the biggest contributor is the irrational use of antibiotics. Commonly known as the 'misuse and overuse' problem, AMR however, has remained in the preserve of the infectious diseases experts and the corridors of hospitals, and in policy circles. Until now. That is where Mr. Modi's remarks will make a difference, coaxing AMR out of the rarefied domain into the mainstream, where there is awareness of the public risk it poses, along with the links to everyday behaviour.

By invoking national data and appealing directly to citizens to avoid over-the-counter

AMR – Factors Responsible

1. Irrational Use of Antibiotics in Humans
2. Surge in Antibiotic Use During COVID-19
3. Indiscriminate Use in Agriculture and Animal Husbandry
4. Environmental Contamination from Pharmaceutical and Hospital Waste
5. Incomplete or Improper Treatment Courses
6. Poor Hygiene, Sanitation, and Infection Control
7. Weak Surveillance and Regulatory Oversight

ANTIBIOTIC RESISTANCE HOW IT SPREADS



www.who.int/drugresistance

#AntibioticResistance

World Health Organization



India's Battle against Antimicrobial Resistance



CONTEXT: The 'Mann Ki Baat' of December 2025 mentioned AMR as matter of concern. Due to indiscriminate use of antibiotics, they are proving to be less effective against pneumonia and urinary tract infections.

Initiative / Instrument	Implementing Agency	Key Features
Schedule H & H1 Regulation (Drugs & Cosmetics Rules, 1945)	CDSCO, MoHFW	Prescription-only sale; Schedule H1 drugs require special labelling , mandatory sales register , records kept for 3 years ; includes 24 high-end antimicrobials
National Action Plan on AMR (NAP-AMR), 2017	MoHFW (Multi-ministry)	Covers human health, animal health, agriculture, environment ; promotes surveillance, stewardship, awareness, and research
Delhi Declaration on AMR	Inter-ministerial	Formal pledge by concerned ministries to coordinate and support AMR containment
Red Line Campaign (2016)	MoHFW	Red line on antibiotic packs ; signals " prescription only " medicines; public awareness tool
National Centre for Disease Control (NCDC)	MoHFW	Acts as nodal agency for AMR; supports states; monitors implementation of NAP-AMR
AMR Surveillance Network	ICMR	Network of labs monitoring drug-resistant infections ; evidence base for policy
Antimicrobial Stewardship Programme (AMSP)	ICMR	Guidelines for hospitals; promotes appropriate prescription practices
National One Health Mission (2023)	Govt. of India	Links human-animal-environment health ; strengthens cross-sector data sharing

Way Forward

- **Expand and Decentralise AMR Surveillance** - Urgently expand surveillance beyond urban, tertiary hospitals to ensure surveillance reflects true community prevalence, not just severe hospital cases.

- **Include Private Healthcare Facilities** - Integrate private hospitals and laboratories into the national surveillance framework.
- **Improve Data Quality and Coverage** - Increase the number of sentinel sites and ensure uniform reporting standards.



India's Battle against Antimicrobial Resistance



CONTEXT: The 'Mann Ki Baat' of December 2025 mentioned AMR as matter of concern. Due to indiscriminate use of antibiotics, they are proving to be less effective against pneumonia and urinary tract infections.

Way Forward

- **Use digital platforms for real-time data sharing with WHO-GLASS.**
- Promote **rational prescription of antibiotics** through standard treatment guidelines.
- **Expand public awareness campaigns to discourage self-medication and incomplete treatment.**
- **Invest in Research and Innovation** – support development of new antibiotics, vaccines, alternatives such as phage therapy.
- **Reduce Infection Burden at Source** – strengthen WASH infrastructure (clean water, sanitation, hygiene).
- **Ensure Sustained Political and Financial Commitment** – Funding, implementation and monitoring.

Mains Practice Question

Q. Antimicrobial Resistance (AMR) has emerged as a major public health challenge in India. Discuss the key factors contributing to AMR and suggest a strategy to mitigate this health crisis in India. (15 marks, 250 words)



Climate targets - Efficiency Improved, Emissions Persist



CONTEXT: While the country has successfully reduced emissions intensity, and increased non-fossil power capacity, challenges remain in translating these achievements into absolute emissions reductions.

Pledge – Climate action

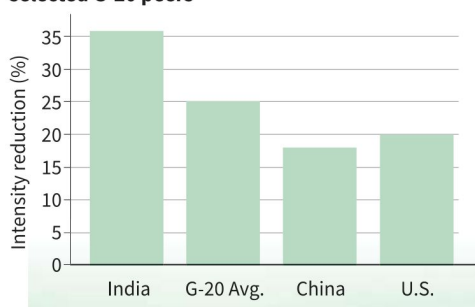
COP 21 – Paris 2015

- ❑ Reduce emissions intensity by 33–35% by 2030 (based on the 2005 baseline)
- ❑ Enhance non-fossil power capacity to 40% by 2030
- ❑ 175 GW of renewable energy by 2022
- ❑ 2.5–3 billion tonnes of carbon sequestration through forests.

COP 26 – Glasgow

- ❑ India will increase its non-fossil fuel energy capacity to 500 gigawatt (GW) by 2030.
- ❑ It will meet 50 per cent of its energy requirements from renewable sources by 2030.
- ❑ The total projected carbon emissions will be reduced by 1 billion tonnes from now through 2030.
- ❑ The carbon intensity of its economy will be brought down to less than 45 per cent.
- ❑ India will achieve its target of net zero by 2070

Comparative intensity trajectories: India versus selected G-20 peers



Status and Challenges

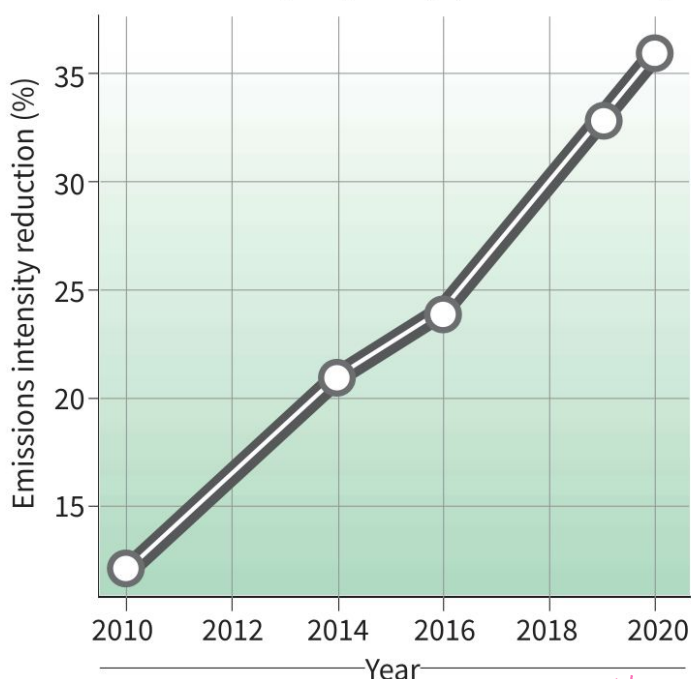
Baseline – 2005

- Emissions intensity decreased by approximately 36% by 2020

Factors

- ❑ **Rapid expansion of non-fossil power capacity-** By 2023, non-fossil capacity exceeded by approximately 43%, and it reached roughly 50% by mid-2025.
- ❑ **India's economic composition shifted toward lower-carbon services and digital sectors**
- ❑ **National efficiency programmes like Perform, Achieve and Trade (PAT) and UJALA** curbed demand growth in industry and households.

Emissions-intensity trajectory (2005 baseline)



Climate targets - Efficiency Improved, Emissions Persist



CONTEXT: While the country has successfully reduced emissions intensity, and increased non-fossil power capacity, challenges remain in translating these achievements into absolute emissions reductions.

Concern and Reason

However, intensity gains still coexist with persistently high absolute emissions. India's territorial greenhouse gas (GHG) emissions were approximately 2,959 MtCO₂e in 2020, and absolute emissions have remained high thereafter.

This phenomenon exists because of partial decoupling: GDP growth has outpaced emissions growth, so intensity has declined without an economy-wide absolute fall. This matters because national intensity averages mask sectoral divergence, as evidenced by the continued rise in emissions from the cement, steel, and transport sectors, even as the power sector's CO₂ growth moderated in 2024-25.

❑ **Absolute emissions still high**

- India's total greenhouse gas emissions were about **2,959 MtCO₂e in 2020**. (Remained Same)
 - a. Population is large
 - b. Infrastructure and industry are expanding
 - c. Energy demand keeps rising

❑ **National averages mask sectoral divergence**

- Construction is expanding
- Vehicle numbers are increasing
- Heavy industries rely on fossil fuels

Non fossil fuel based Energy - Generation Gap

Achievements

- **Rapid scale-up of non-fossil capacity:** From ~29.5% (2015) to ~51.4% (June 2025),.
- **Solar power as the primary driver:** ~2.8 GW (2014) to ~110.9 GW (mid-2025)
- **Steady, though slower, growth in wind energy:** ~21 GW to ~51.3 GW over the same period.
- **Consistent annual capacity addition:** National Solar Mission, Solar Parks, PM-KUSUM, rooftop solar, UDAY ~ **25 GW renewable addition per year.**
- **Headline policy success:** India achieved its original **40% non-fossil capacity target** and surpassed it, strengthening global climate credibility.

Partial Decoupling

GDP >> Emission

Emission (still growing)

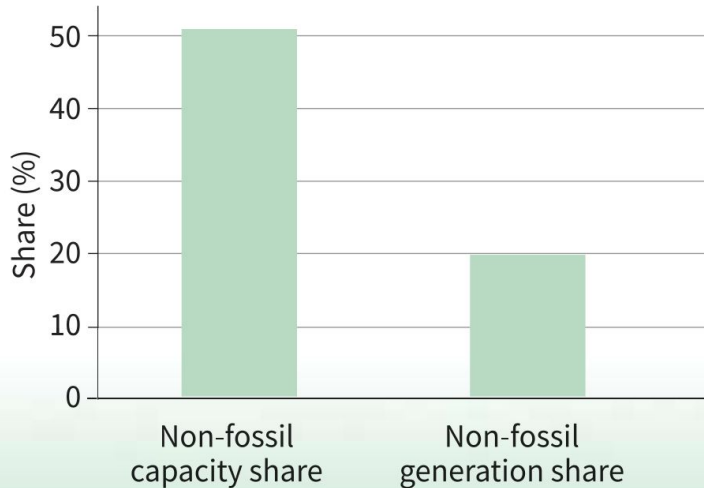


Climate targets - Efficiency Improved, Emissions Persist



CONTEXT: While the country has successfully reduced emissions intensity, and increased non-fossil power capacity, challenges remain in translating these achievements into absolute emissions reductions.

Installed non-fossil capacity (%) versus actual generation share (%) (2024-25)



- ❑ **Capacity-generation mismatch:** >50% non-fossil capacity, renewables supplied only ~22% of electricity generation in 2024-25.
- ❑ **Coal dominance in actual power supply:** >70% of electricity generation still comes from coal.
- ❑ **Storage deficit as the key bottleneck:** CEA projects 336 GWh storage demand by 2029-30
- ❑ Only ~500 MWh of battery storage operational as of Sept 2025

- ❑ **Grid and land constraints:** transmission bottlenecks, grid-connection delays, and land acquisition challenges
- ❑ **Thermal capacity remains entrenched:** Coal-based capacity stood at ~240-253 GW in mid-2025, forming the backbone of India's power system.
- ❑ **Targets vs outcomes gap: 175 GW renewables target (2022)** was missed
- ❑ **500 GW by 2030** is technically feasible but depends on faster storage deployment, grid upgrades, and stronger policy execution.



Climate targets - Efficiency Improved, Emissions Persist



CONTEXT: While the country has successfully reduced emissions intensity, and increased non-fossil power capacity, challenges remain in translating these achievements into absolute emissions reductions.

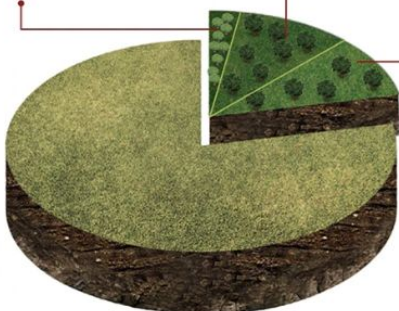
Forest Cover

- ❑ **Carbon Sink Target:** Additional forest carbon sink of 2.5–3 billion tonnes CO₂e by 2030.
 - As per **India State of Forest Report (ISFR) 2023:** 2.29 Bill tonnes additional sink achieved.
- ❑ **Broad Definition of “Forest Cover”** – Forest Survey of India (FSI) defines forest as:
 - Any land >1 hectare
 - With ≥10% tree canopy
- ❑ **Forest Cover Growth Is Marginal**
 - India's forest cover in 2023: 7,15,343 sq km
 - Increase since 2021: only 156 sq km

THE GREEN SURVEY

TOTAL GEOGRAPHICAL AREA	TOTAL FOREST COVER	
	2021	2019
3,287,469 square kilometres	713,789 sq. km 21.71%	712,249 sq km 21.67%

VERY DENSE FOREST (VDF)*		MODERATELY DENSE FOREST (MDF)**	
2021	2019	2021	2019
99,779 sq km 3.04%	99,278 sq km 3.02%	306,890 sq. km 9.33%	308,472 sq. km 9.39%



● Area (square kilometres)
● Percentage of geographical area
*VDF: Tree canopy of 70 per cent and above
**MDF: Tree canopy of 40-70 per cent
#OF: Tree canopy cover of 10-40 per cent

OPEN FOREST (OF)#	
2021	2019
307,120 sq. km 9.34%	304,499 sq. km 9.26%

Key Highlights from

India State of Forest Report 2023

India's Progress on NDC Carbon Sequestration Target

- India's carbon stock has reached 30.43 billion tonnes of CO₂ equivalent
- India has reached 2.29 billion tonnes of additional carbon sink as against the target of 2.5 to 3.0 billion tonnes by 2030 compared to the base year of 2005

- ❑ **Governance Gaps in Afforestation Schemes CAMPA Fund (2016):** ~ ₹95,000 crore collected
- ❑ **Poor utilisation by States – Delhi used only 23% of allocated funds (2019–24)**
- ❑ **Plantation Not regeneration – Green India Mission (Revised, 2025) aims to restore 5 million hectares.** – Plantations store carbon but **do not restore ecosystems.**
- ❑ **Climate Change Stress on Forests** – Satellite data shows “greening” (more leaf cover).



Climate targets - Efficiency Improved, Emissions Persist



CONTEXT: While the country has successfully reduced emissions intensity, and increased non-fossil power capacity, challenges remain in translating these achievements into absolute emissions reductions.

Way Forward Measures	Expected Outcome
Rapid scaling of battery storage and pumped hydro , aligned with renewable corridors and demand centres	Stable, round-the-clock renewable power
Develop a time-bound coal transition roadmap ; retire inefficient plants; shift coal to flexible backup role	Reduced fossil lock-in and smoother energy transition
Reform forest governance to prioritise natural regeneration and biodiversity over monocultures	Genuine carbon sinks with ecological resilience
Strengthen Centre-State and inter-ministerial coordination on grid expansion, land acquisition, and transmission	Faster renewable integration and reduced project delays
Introduce sector-wise and region-wise emissions tracking and public data disclosure	Targeted policy intervention and accountability
Shift focus from just adding renewable capacity and reducing emissions per unit of GDP to actually producing clean electricity continuously and bringing down total emissions in real terms.	Real climate impact beyond headline achievements

Mains Practice Question

Q. India's climate action under the Paris Agreement (COP-21) has shown notable progress in emissions intensity reduction however, these achievements have not translated into a decline in absolute emissions or reduced dependence on coal-based baseload power. Examine. (15 Marks / 250 words)



SYLLABUS: GS-I: History

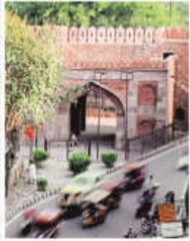
Newspaper: The Indian Express; Page Number: 01 /10

Turkman Gate in Delhi's history

Turkman Gate was constructed in the 17th century during the reign of Mughal emperor Shah Jahan, when he founded his new capital at Shahjahanabad. The site's historical significance predates him and is rooted in a period when Delhi was a centre of Sufism.

Historian Swapna Liddle told *The Indian Express* that the road from Fatepuri Masjid to Turkman Gate was an important pre-existing thoroughfare. "It was beside this road that a Sufi saint called Shah Turkman Bayabani lived and was buried," Liddle said.

When Shahjahanabad's city walls were laid out, these older areas were enclosed within them. The gate built nearest to Shah Turkman's shrine came to be known as Turkman *Darwaza*, or Turkman Gate. Adjacent to the shrine is the grave traditionally identified as that of the 13th-century ruler Razia Sultan, the only woman ruler of the Delhi Sultanate.

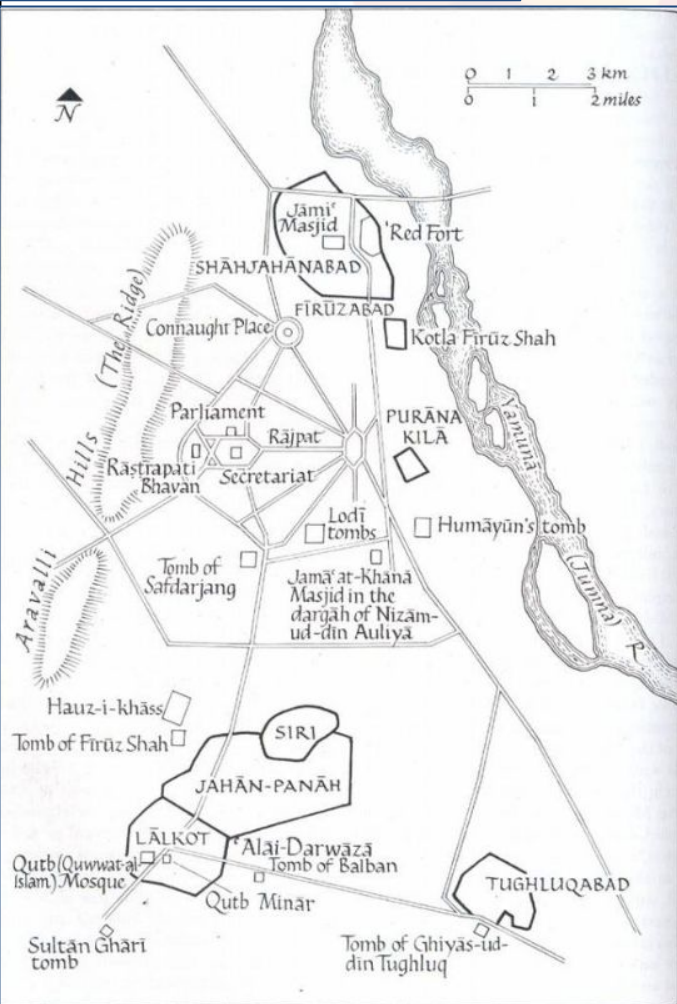


Turkman Gate was built in the 17th century in Delhi. FILE

Little is known about Shah Turkman. But Liddle says the burial of Razia Sultan beside his shrine and the naming of a Mughal gateway after him indicate the reverence he commanded.

After the uprising of 1857, British authorities demolished sections of the city walls on either side of the gate. In the early 20th century, further portions were removed to facilitate commercial expansion.

The gate remained standing.



City (Historic/ Alternate Name)	Founder / Builder	Approx. Period Built / Founded
Lal Kot / Qila Rai Pithora	Anangpal Tomar II (founded Lal Kot); expanded by Prithviraj Chauhan into Qila Rai Pithora	c. 1052–1060 CE (Lal Kot); later 12th century expansion by Chauhan
Mehrauli (Qutb complex)	Qutb-ud-Din Aibak (initiated major constructions)	1193–1220 CE (early Sultanate development)
Siri	Alauddin Khalji	c. 1296–1316 CE (built early 1300s)
Tughlaqabad	Ghiyasuddin Tughlaq	1321–1325 CE
Jahanpanah	Muhammad bin Tughlaq	c. 1326–1327 CE
Firozabad	Firoz Shah Tughlaq	1354 CE
Dinpanah / Shergarh (Purana Qila)	Humayun (initiated Dinpanah); later completed / renamed Sher Shah Suri	1530s – 1540s CE
Shahjahanabad	Shah Jahan	1638–1649 CE (mid-17th century)



SYLLABUS: GS-1: History

Newspaper: The Indian Express; **Page Number:** 01 /10

Shah Jahan (1628–1658)

- **Full name:** Shahab-ud-din Muhammad Khurram
- **Title “Shah Jahan” means:** *King of the World*
- **Father:** Jahangir
- **Mother:** Jagat Gosaini (Rajput princess of Marwar)
- **Shifted capital from:** Agra → **Shahjahanabad (Delhi)**
- **Red Fort (Lal Qila):** Built in Delhi
- **Court language:** Persian
- **Architecture – Peak of Mughal architecture** — emphasis on **symmetry, marble, pietra dura**
- **Major constructions:**
 - ❑ **Taj Mahal** (Agra) – in memory of Mumtaz Mahal
 - ❑ **Red Fort** (Delhi)
 - ❑ **Jama Masjid** (Delhi) – one of the largest in India
 - ❑ **Moti Masjid** (Agra)
 - ❑ **Building material shift:** Red sandstone → **White marble**

Razia Sultana (1236–1240 CE)

- **Full name:** Raziyat-ud-Din
- **Only woman ruler** to sit on the **Delhi Sultanate throne**
- **Dynasty:** Slave (Mamluk) Dynasty
- **Father:** Iltutmish
- **Opposition:** Turkish nobility (**Chahalgani / Forty**)
- **Appointments:** Elevated **Jamal-ud-Din Yaqut** (Abyssinian) – major cause of nobility’s hostility
- Deposed in: 1240 CE
- Imprisoned and later killed near Kaithal (Haryana)

Shams-ul-Arifeen Shah Turkman Bayabani

- He lived before the establishment of Shahjahanabad (1639).
- Died in 1240 CE – same year as the death of Razia Sultana.
- Contemporary of Qutub-ud-Din Bakhtiyar Kaki and Sultan Iltutmish.
- Belonged to Sufis practising seclusion and solitude.
- Term “Bayaban” means wilderness → hence the title Bayabani.



SYLLABUS: GS - 1: Population & Associated issues

Newspaper: The Hindu; **Page Number:** 12

About Census

- Census is a complete enumeration of the entire population of any country.
- **Insight - size, distribution, socioeconomic characteristics, demographics** etc of a country's population.
- **Agency - Office of the Registrar General and Census Commissioner, India under Ministry of Home Affairs.**
- Conduct of census in India is guided by the **Census Act, 1948.**
- Census is conducted **every 10 years.**
- Till date, India has successfully conducted **15 successive censuses since 1872. (1881 – first synchronous census)**

Unique Features

- This will be the first digital Census
- First to enumerate caste in independent India. (beyond SC/ ST)
- (1881-31 – caste were enumerated)

Significance

- **Women reservation** in Parliament & State Assembly is linked to Census
- **Delimitation (Article 82) - 42nd Amendment (1976) – 2001 > 84th Amendment (2002):** Extended the freeze until 2026



SYLLABUS: GS 3 : Awareness in the field of space

Newspaper: The Hindu; **Page Number:** 05

The Indian Space Research Organisation (ISRO) is scheduled to launch the PSLV-C62/EOS-N1 Mission on January 12.

The launch of the earth observation satellite (EOS-N1) satellite along with other payloads will take place from the first launch pad of the Satish Dhawan Space Centre at Sriharikota in Andhra Pradesh.

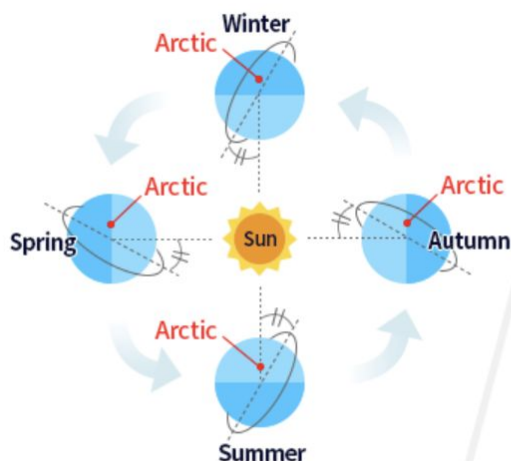
Strategic use

EOS-N1 is an earth imaging satellite said to be built for strategic purposes. ISRO has not shared further details about the satellite. "The launch of PSLV-C62 Mission is scheduled on 12 January 2026 at 10:17 hrs IST," ISRO posted on X.

Earth Observation satellite

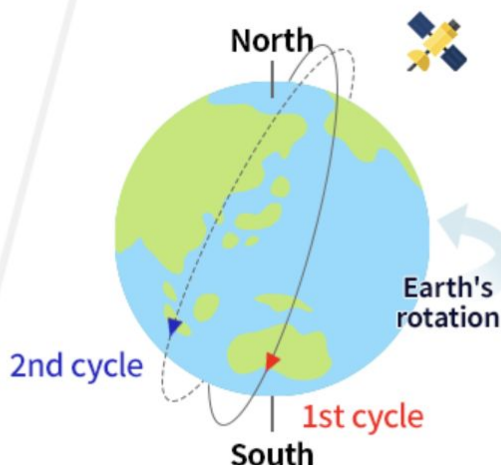
- Polar-orbiting satellites for long-term observations of the various landscapes on the Earth - atmosphere, biosphere, lithosphere and oceans.
- These types of satellites **monitor our planet** from space and **report back on any changes they observe**
- Earth observation satellites mainly follow a **synchronous sub-recurrent orbit, a type of polar orbit**.
- **Sun-synchronous orbit:** The angle between an orbit plane and the Sun seen from the Earth is always constant at the same local solar time
- **Sub-recurrent orbit:** Flying at the same local solar time and the same location at a fixed period.
- **Observational benefit for satellites:** It is possible to observe the same region at fixed intervals as the incidence angle of sunlight on the earth's surface is almost constant in a synchronous sub-recurrent orbit

Sun-synchronous orbit



The angle between the orbital plane and the sun is kept almost constant.

Sub-recurrent orbit



Satellite go around the earth several times a day, and after a few days it passes through the same area at about the same time.



SC disagrees on claims over LS speaker



SYLLABUS: GS 2: Judiciary

Newspaper: The Indian Express: The Hindu; **Page Number:** 06, 01

Express News Service
New Delhi, January 7

The Supreme Court Wednesday said it did not prima facie agree with Allahabad HC judge Justice Yashwant Varma's contention that the Lok Sabha Speaker could not have constituted an inquiry committee to probe into the recovery of burnt cash last year from his official residence in Delhi, when the Rajya Sabha Deputy Chairman had rejected the motion to impeach him.

While hearing Justice Varma's writ petition challenging the legality of the Parliamentary Committee constituted under the Judges (Inquiry) Act, 1968, to hold an inquiry, a bench of Justices Dipankar Datta and SC Sharma, however, said it will examine if the issue is so prejudicial to his interests as to warrant the court's intervention.

"If one House has rejected... where is the bar under the proviso for the Lok Sabha to appoint?... It contemplates a situation that without admission of the motion in one of the Houses, the other House cannot constitute a committee. This is the way the proviso has to be framed... our point is one motion is not accepted, why should the motion of the other House fail?" said Justice Datta.

"If admitted, joint committee. If not admitted, there is a silence in the proviso... we have to read it purposively to give effect to the intention of the legislature," added Justice Datta.

THE JUDGES (INQUIRY) ACT, 1968

- Investigation into misbehaviour or incapacity of Judge by Committee
- **A removal motion** - 100 members (in the case of Lok Sabha) or 50 members (in the case of Rajya Sabha)
- **Power to admit motion** - Speaker / Chairman of RS
- **Constitution of committee** - Speaker / Chairman of RS
 - (a) the chief justice or a judge of the Supreme Court
 - (b) a chief justice of a high
 - (c) a distinguished jurist.
- Submission to Speaker / Chairman
- **If found guilty of any misbehaviour or suffers from any incapacity** - be taken up for consideration by the House or the Houses of Parliament in which it is pending.
- Article 124 (4) - Removal by order of President - if motion is passed by each House of Parliament supported **by a majority of the total membership of that House and by a majority of not less than two-third of the members of the House present and voting**



SC disagrees on claims over LS speaker



SYLLABUS: GS 2: Judiciary

Newspaper: The Indian Express: The Hindu; **Page Number:** 06, 01

3. Investigation into misbehaviour or incapacity of Judge by Committee.—(1) If notice is given of a motion for presenting an address to the President praying for the removal of a Judge signed,—

(a) in the case of a notice given in the House of the People, by not less than one hundred members of that House;

(b) in the case of a notice given in the Council of States, by not less than fifty members of that Council;

then, the Speaker or, as the case may be, the Chairman may, after consulting such persons, if any, as he thinks fit and after considering such materials, if any, as may be available to him, either admit the motion or refuse to admit the same.

(2) If the motion referred to in sub-section (1) is admitted, the Speaker or, as the case may be, the Chairman shall keep the motion pending and constitute, as soon as may be, for the purpose of making an investigation into the grounds on which the removal of a Judge is prayed for, a Committee consisting of three members of whom—

(a) one shall be chosen from among the Chief Justice and other Judges of the Supreme Court;

(b) one shall be chosen from among the Chief Justices of the High Courts, and

(c) one shall be a person who is, in the opinion of, the Speaker or, as the case may be, the Chairman, a distinguished jurist:

Provided that where notices of a motion referred to in sub-section (1) are given on the same day in both Houses of Parliament, no Committee shall be constituted unless the motion has been admitted in both Houses and where such motion has been admitted in both Houses, the Committee shall be constituted jointly by the Speaker and the Chairman:

Provided further that where notices of a motion as aforesaid are given in the Houses of Parliament on different dates, the notice which is given later shall stand rejected.



Why Silver prices surfed wave in 2025



SYLLABUS: Prelims: Economy – recent developments

Newspaper: The Indian Express; **Page Number:** 10

AFTER A 160%-plus rise in 2025, the price of silver has continued to surge this year, with the first week of 2026 seeing an increase of more than 7%.

The year 2025 also witnessed record highs for gold prices. This was largely driven by dented investor confidence due to global trade tensions and continued easing of interest rates by the US Federal Reserve. The reasons behind silver's rise are similar, but also different.

Unlike gold, which is primarily purchased by households and central banks as a store of value and investment, silver actually has inherent physical properties that make it a key component in the manufacture of items, such as batteries and solar panels. These sectors are not only in vogue now but will be crucial to the future of humanity.

The "bedrock of demand" for silver also includes artificial intelligence.

"Artificial intelligence remains a powerful demand source for silver. Investment in AI-related industries is increasing silver demand over a wide scale of applications, including smart grid infrastructure and data transmission. Investment levels lead us to view AI-related silver demand as a growth source for the next several years," James Steel, Chief Precious Metals Analyst at investment bank HSBC, said on Wednesday.

Silver is also used to make jewellery and coins. That is why buyers and their reasons to purchase silver are more varied than those of gold.

US and China

The supply of silver is also different from gold. Primarily a byproduct when other minerals are mined, silver's supply has not moved to match the increase in demand from various quarters, including industry, for several years.

More proximate supply-side reasons for the jump in price of silver include the metal's inclusion in certain 'lists'. In November, the United States added silver to its list of critical minerals. Revised every

Even before the addition of silver to the critical minerals list, stockpiles of the metal in the US were spiralling to unprecedented levels due to tariff fears. According to the CME Group's Commodity Exchange, the inventory of silver had risen to 531 million ounces in late September, up 74% from a year ago. Currently, the stockpile is at 449 million ounces, triple the usual levels. (One ounce is equal to 28 grams).

Then there are China's new rare metals export restrictions, covering the next two years, that came into force on January 1. Silver being part of the list has caused concern among its users.

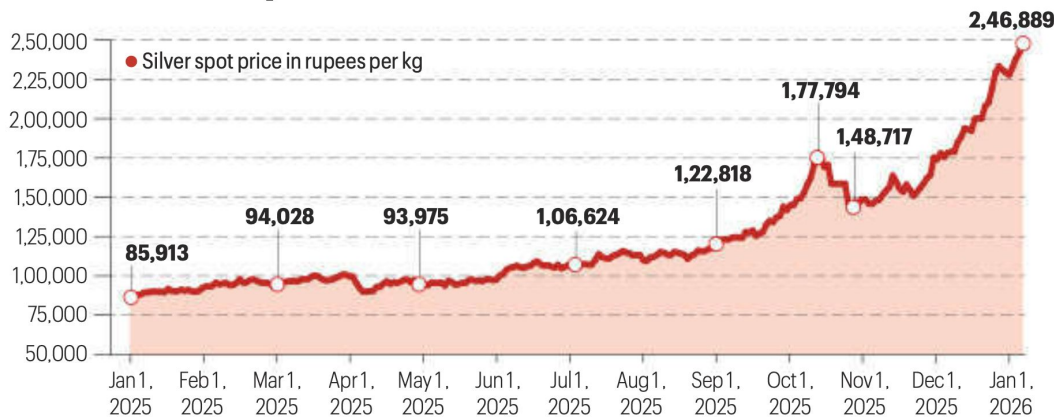


Why Silver prices surfed wave in 2025

SYLLABUS: Prelims: Economy – recent developments

Newspaper: The Indian Express; **Page Number:** 10

• Silver's steady rise



SOURCE: MULTI COMMODITY EXCHANGE OF INDIA LIMITED

supply mismatches in key markets such as London, where the global price of the metal is decided. Shortage of actual, physical silver in London by October last year — around Diwali — led to prices skyrocketing.

In the case of gold, India is usually the reason for big price movements. However, in 2025, silver was dragged into the craze too. Switzerland-based Bank for International Settlements, an organisation of central banks from around the world, in December said that “trend-chasing investors – notably retail – might have sought to capitalise on gold’s momentum by engaging in speculative behaviour”.

When new ETF units are created by mutual fund houses, they must buy physical silver. What ensues is a self-fulfilling prophecy of sorts: a shortage of silver — in London and India — led prices to rise, which made people want to buy more of the metal as they feared missing out on the opportunity, which made prices rise further. Some mutual funds decided the price risk was not worth it and stopped accepting fresh investments.

Commodities on the rise

Gold and silver are not the only metals to have risen in 2025. Copper prices also surged and crossed the \$12,000-a-tonne mark for the first time in December due to the same concerns as those faced by silver: US tariffs and shortages. The weakening of the US dollar has also led to the adoption of the so-called ‘debasement trade’, which involves buying assets such as gold, silver, bitcoin, and industrial metals in the expectation that they will become dearer and provide insulation from falling currencies.



Q1. Regarding Antimicrobial Resistance (AMR), consider the following statements:

1. AMR occurs when microorganisms, and not the human body, develop resistance to antimicrobial drugs.
2. Indiscriminate use of antibiotics in livestock can contribute to AMR in humans.
3. AMR implies that antibiotics become ineffective against all diseases caused by bacteria.

How many of the statements given above is/are correct?

- a) Only One
- b) Only Two
- c) All Three
- d) None

Answer: b

Q2. Consider the following statements:

1. India's target of achieving net-zero emissions by 2070 was announced at the COP-26 conference.
2. The target of reducing emissions intensity by 33–35% by 2030 (from 2005 levels) was part of India's COP-26 commitments.
3. India's pledge to create 2.5–3 billion tonnes of additional carbon sink through forests was announced at COP-21.

Which of the statements given above is/are correct?

- a) 3 only
- b) 1 only
- c) 1 and 3 only
- d) 1, 2 and 3

Answer: c

Q3. Regarding Razia Sultana, consider the following statements:

1. She was the first woman to rule the Delhi Sultanate throne.
2. She was nominated as successor by Balban in preference to his sons.

3. Her reign marked the end of Turkish dominance in the Delhi Sultanate.

How many of the statements given above is/are correct?

- a) 2 and 3 only
- b) 1, 2 and 3
- c) 1 and 3 only
- d) 1 only

Answer: d

Q4. How many of the following statements regarding the Census in India is/are correct?

1. It is conducted under the Census Act, 1948.
2. Census data can be used for the delimitation of constituencies.
3. The census is carried out by the Registrar General of India under the Ministry of Urban Affairs.

Select the correct answer using the code given below.

- a) Only One
- b) Only Two
- c) All Three
- d) None

Answer: a

Q5. Regarding the Earth Observation satellites, consider the following statements:

1. They primarily use passive sensors that record reflected or emitted radiation from the Earth's surface.
2. Synthetic Aperture Radar-based Earth observation satellites can acquire data irrespective of cloud cover and daylight conditions.
3. Higher spatial resolution in Earth observation satellites necessarily implies lower temporal resolution.

Which of the statements given above is/are correct?

- a) 1 and 2 only
- b) 1, 2 and 3
- c) 2 only
- d) 1 and 3 only

Answer: a





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