







Daily CURRENT AFFAIRS

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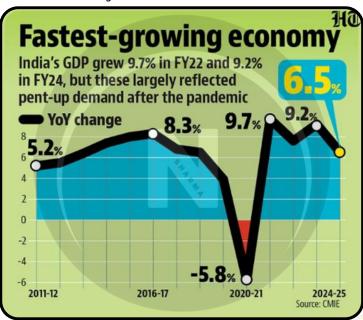




India's GDP Growth at 6.5% in 2024 - 25

Why in the News?

- India's GDP for the 2024-25 financial year increased by 6.5%, according to the preliminary estimates published by the Ministry of Statistics and Program Implementation (MOSPI).
- Despite an impressive 7.4% GDP growth in the 4th quarter (January-March 2025), the overall growth for the highest quarter's expansion year in fiscal policy had been the fastest since the epidemicaffected year 2020-21.



This announcement is important because:

- It comes globally in the midst of a weak economic environment, which has geopolitical stress and business recession that affects most economies.
- Year for year-GNP growth of 7.4% was still less than an increase of 8.4% in the 4th quarter of F 2023-24, indicating a recession. Despite the fear of recession, India is still one of the fastest-growing large economies, with extensive economic, tax and global investment implications

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Background

- Understand GDP and understand importance.
- GDP (GDP) is a monetary measure of the market value of all final goods and services produced in a country for a specified time. It is the most commonly used indicator to measure the economic performance of a country.
- India reports GDP growth in both nominal and real terms:
- The GDP itself adapts to inflation and is used to monitor real growth.
- Nominal GDP measures production at today's prices.
- India's GDP growth is closely observed by global investors, credit rating agencies and multilateral institutions such as the IMF and the World Bank to assess the extensive economic stability and fiscal health.
- Recovery and fiscal year since 2020-21

India's economy was hit with 6.6% in 2020-21 due to COVID-19, but turned quickly:

- **2021- 22:** 8.7% actual GDP growth
- **2022-23:** 7.2%
- **2023 -24:** 7.6%
- 2024 -25: 6.5% (currently)

Although Q4 puts out strong growth, the total trend reflects the recession, especially compared to 8.4% in the FY24S Q4.

Sectoral growth

- Agriculture: Continuous strong performance; Despite the irregular monsoon, he helped lift the number in all years.
- **Production:** 4.8% in the 4th quarter (high base power from 11.3% in 4th quarter FY24), 4.5% for the whole year.







- **Construction:** 10.8% in 4th quarter (fastest quarterly expansion), 9.4% annually (slightly below 10.4% in FY24).
- Services: Continuous high development, especially in economic and real estate areas.
- **Domestic consumption:** FY 25 increased by 7.2%, over 5.6% in 25 25, representing the recovery of the countryside and urban demand.

Analysis: What indicates the growth rate of 6.5%?

- Mixed financial signal: 7.4% Q4 provides development optimism, but 6.5% reflects the frequency of year-round slow. Global uncertainty such as war in Ukraine, the Red Sea voltage and the slow recovery of China has reduced India's exports and investments. A high base effect from previous years has also naturally completed the growth rate.
- Domestic factors in sports: Private consumption is still the main basis for development (60% of GDP), and recovery is a good sign.
- Gross Fixed Capital formation (GFCF), an indicator for investment, has shown moderate growth, but it is not enough to lead to CAPEX-powered bounces.
- The government's expenses are still large drivers, especially in infrastructure and social areas.
- Regional imbalance
- While construction and agriculture show strong growth, production is lagging, especially in export-intensive areas such as textiles and electronics. Recovery of the informal sector remains packed, and many microenterprises continue to face a crisis due to high input costs and low demand.

Inflation and interest

- The headline inflation remained within the RBI's comfort zone, about 5%, but the food inflation was unstable. RBI's financial tightening cycles and global rise in interest rates have affected credit and investment.
- Zone out: The goods exports were weak due to tight global demand. Exports of services, especially in IT and consultation, showed flexibility. The deficit on the operating balance (CAD) remained under control due to healthy transmission and capital flow.

According to the IMF's view from April 2025:

- India is one of the top three major cultivated economies.
- China is estimated to increase by 4.6%, and about 2.1% in the United States.
- The global average is expected to be 3.2%, which means India performs better.
- However, 6.5% of the government still has an 8% increase over ambition, and structural obstacles remain.

Implications for India

- Fish Leadership: The minimum improvement tax can damage the income collection, which affects the targets for tax deficits. The government can meet the dilemma between stimulating development and maintaining fiscal discipline.
- Employment problems: GDP growth, especially in production, has not translated proportionally into job creation. Young unemployment is high, which can create long-term socio-economic tribulations.
- However, there may be a delay in large private investments in underdevelopment countries.



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Implications for India

- Fish Leadership: The minimum improvement tax can damage the income collection, which affects the targets for tax deficits. The government can meet the dilemma between stimulating development and maintaining fiscal discipline.
- Employment problems: GDP growth, especially in production, has not translated proportionally into job creation. Young unemployment is high, which can create long-term socio-economic tribulations.
- The confidence in the investment:
 Stable macroeconomic indicators
 support FDI and portfolio. However,
 large-scale private investment
 provision in underdevelopment can
 be delayed.
- Political and social references: FY 2024 25, which is the year after the election, is financial management during careful guard. High development helps governments maintain political capital and the distribution of welfare, especially during global crises.

The way forward

- Promote private investments:
 Political stability, fast approval and low conformity load can unlock private capital. Production-linked incentive (PLI) schemes should be made more sector-specific and results-oriented.
- Reinforcement: Increase rural employment opportunities through NREGA and Agri infrastructure. Strengthen MSP and the procurement mechanism to support agricultural revenues.

Production push

- Easy to run business, labour law rationalisation and plug-and-play Industrial Park.
- Increase the export competition by improving logistics and lowering entry costs.
- Innovation and productivity
- Invest in digital infrastructure, R&D and skills to improve total causal productivity.
- Encourage MSMEs to improve, formal and digitise access to finance and markets.
- Green and inclusive development
- Support the adoption of green technologies and renewable energy, and ensure social inclusion.

Conclusion

India's 6.5% GDP growth in FY 2024–25, while robust in global comparison, is a reminder of slowing post-COVID momentum. Despite a strong finish in Q4, the full-year figure marks the slowest growth since the pandemic, signalling the need for policy recalibration to sustain high growth in a volatile global economy.

Main Question

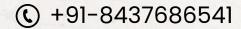
Q. Despite registering 6.5% GDP growth in FY 2024–25, India faces structural and sectoral vulnerabilities that constrain long-term economic resilience. Critically examine the drivers, limitations, and implications of this growth trajectory in the context of domestic policy, global economic headwinds, and inclusive development goals.

Question 1: In the context of India's GDP growth trajectory for FY 2024 - 25, consider the following statements:

1. The 6.5% GDP growth for FY 2024–25 was primarily driven by strong exports and capital expenditure (CAPEX) from the private sector.



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- 2. Gross Fixed Capital Formation (GFCF) showed robust growth, surpassing the contribution of private consumption to GDP.
- 3. Despite the slowdown in annual GDP growth, Q4 (January–March 2025) witnessed the fastest quarterly growth rate since the COVID-19 pandemic.
- 4. The high base effect from previous years contributed to the moderation of annual GDP growth despite strong domestic consumption.

Which of the above statements is/are correct?

- A) 1 and 2 only
- B) 3 and 4 only
- C) 2 and 3 only
- D) 1, 2, and 4 only

Answer:B) 3 and 4 only

Explanation:

- Statement 1 Incorrect: While exports and private CAPEX are essential for sustained growth, the article indicates exports were weak due to global headwinds, and private investments remained moderate. Government expenditure and private consumption (60% of GDP) were the key drivers, not private sector CAPEX.
- Statement 2 Incorrect: GFCF showed moderate growth and did not surpass private consumption's contribution. Private consumption rebounded sharply (7.2%) and was the main contributor to GDP, especially from rural and urban recovery.
- Statement 3 Correct Q4: of FY 2024–25 recorded 7.4% growth, the highest quarterly expansion since the pandemic year 2020–21. This indicates short-term economic momentum, despite full-year moderation.

• Statement 4 Correct: The high base effect from previous years (7.6% in FY 2023–24, 7.2% in FY 2022–23) naturally reduced the apparent growth rate, even though sectors like consumption and construction performed well.





Hiding in Plain Sight: The Tobacco **Industry's Strategic** Rebranding

Why in the news?

- On World No Tobacco Day 2025, the World Health Organisation has issued a direct challenge to governments and civil society alike - to "Unmask the Appeal" of new-age nicotine products.
- This comes amidst mounting concerns about the tobacco industry's rebranding strategy, where traditional tobacco giants now sell sleek, flavoured, and youth-oriented nicotine products under the garb of wellness and harm reduction.
- In India, which has over 270 million tobacco users, this rebranding poses a public health crisis hiding in plain sight. Despite banning e-cigarettes in 2019, India is now witnessing a surge in nicotine pouches, herbal vapes, Ayurvedic lozenges, and over-thecounter gums - all marketed as "healthier" or "safe" alternatives, but often functioning as recreational gateways to lifelong addiction.

Background: The Shifting Landscape of Nicotine Addiction

From Cigarettes to Synthetic Nicotine:

A Global Shift Globally, cigarette smoking rates have declined in most developed economies due to aggressive public health policies, taxation, and awareness. However, this success has not eliminated nicotine addiction. Instead, it has pushed the industry to reinvent its offerings:

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- Electronic Nicotine Delivery Systems (ENDS) - e-cigarettes, vapes.
- Heated Tobacco Products (HTPs).
- Synthetic nicotine pouches and flavoured gums.
- Herbal and Ayurvedic-labelled nicotine substitutes.

Leading companies such as Philip Morris International (PMI) and British American Tobacco (BAT) now refer to themselves as "nicotine companies" or "science-led wellness firms".

India's Tobacco Profile: A Unique India is especially vulnerable because

of the following statistics:

- Over 199 million use smokeless tobacco.
- 72 million smoke bidis.
- Only 37 million smoke cigarettes.
- India's vast user base, especially in rural and informal markets, makes it a lucrative territory for noncombustible, low-cost, flavoured nicotine products that can evade the harsh restrictions placed on cigarettes and bidis.
- The Trojan Horse of Harm Reduction
- The concept of "harm reduction", encouraging smokers to switch to less harmful alternatives, is often used by tobacco giants as a moral and scientific cover to market newer products. But in India, these are rarely used as cessation aids. Instead, they act as recreational entry points, especially for youth and nonsmokers.

Features of the Rebranded Tobacco Industry in India

- Sleeker Products, Softer Narratives
- Modern nicotine products are flavoured, portable, and influencerendorsed.







Marketed through e-commerce platforms, Instagram ads, and youthoriented branding.

Labelled as Ayurvedic, herbal, or dietary supplements to dodge tobacco laws.

- Backdoor Entry into Indian Pharmacies
- Products like 2mg gums and lozenges are sold over the counter.
- Originally meant for cessation, but now widely used for recreational purposes.
- Often unsupervised, lacking doctor or behavioural support.

Tobacco-Pharma Convergence

- PMI and BAT now own or invest in pharma firms producing NRTs.
- This vertical integration lets them profit at both ends — by fueling addiction and selling the so-called cure.

Regulatory Evasion via Loopholes

- Products are often licensed to local Indian firms, allowing global players to skirt direct liability.
- Loopholes in COTPA (Cigarettes and Other Tobacco Products Act) and the Drugs and Cosmetics Act allow nicotine products to escape classification as "tobacco" or "medicine".

Challenges: The Hidden Threat of Nicotine Rebranding in India

Misuse of Cessation Tools

- Unregulated access to nicotine gums/lozenges undermines cessation goals.
- Young people increasingly use these products without ever smoking.
- Similar misuse patterns have been observed in countries like the U.S. and Finland.

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Weak Surveillance and Enforcement

- Enforcement of the 2019 e-cigarette ban remains patchy.
- Online platforms freely sell rebranded nicotine items, often without age verification.
- Pharmacovigilance is inadequate, especially for herbal-labelled products.

Health-Washing and Misinformation

- Companies portray nicotine as noncarcinogenic and safe.
- This misrepresents scientific reality:
- Nicotine is a vasoactive agent that increases blood pressure, heart rate, and risk of thrombosis.
- Linked to cardiovascular disease, and may contribute to cancer progression.

Addiction Cycle Profiteering

- Corporations profit from both creating and "treating" addiction.
- Nicotine lozenges, pouches, and gums are marketed as wellness solutions while hooking users through engineered dependence.

Lack of Comprehensive Cessation Support

- WHO recommends behavioural therapy, non-nicotine medications like cytisine, varenicline, and bupropion.
- In India, such therapies are underutilised, and quitline access is limited.
- Absence of trained cessation providers in rural and Tier-II/III areas.

Cultural and Economic Dimensions

 Traditional tobacco products are extremely cheap, making nicotine replacement therapies seem like a luxury.

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 New products blur lines between medication and indulgence, especially in low-literacy populations.

Way Forward: Rebuilding India's Tobacco Control Framework

- Ban Flavoured and Industry-Manufactured Nicotine Products
- All non-medical nicotine lozenges, gums, and pouches that are not part of registered cessation programs must be banned.
- Flavoured variants should be targeted specifically for their youth appeal.

Regulate Over-the-Counter NRTs

- Enforce prescription-only sale of nicotine gums and lozenges.
- Mandate labelling standards, pharmacist training, and recordkeeping.
- Limit sales to certified chemists under pharmacy surveillance programs.

Expand Access to Evidence- Based Cessation Therapies

- Scale up varenicline, bupropion, and cytisine availability in public hospitals.
- Integrate quitline counselling and behavioural therapy into Ayushman Bharat and the National Health Mission.
- Train ASHA workers and primary healthcare providers in tobacco cessation techniques.

Enforce COTPA Provisions Rigorously

 Section 5 of COTPA bans indirect promotion — must be extended to online influencers, health-washed ads, and "wellness" brand tie-ups. Establish a watchdog mechanism for social media surveillance.

Tighten E-Commerce Norms for Nicotine Products

- All online sellers must implement:
 - Mandatory age verification.
 - · Government licensing.
 - Clear tracking and reporting systems.

Close Regulatory Loopholes

- Amend COTPA to explicitly cover:
 - Non-combustible nicotine products.
 - Synthetic and herbal-labelled nicotine delivery systems.
- Bring such products under Schedule H
 of the Drugs and Cosmetics Act,
 making them prescription-only.

Public Awareness and Youth Campaigns

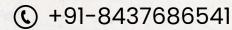
- Launch a nationwide campaign to expose the deceptive marketing of wellness nicotine products.
- Engage educational institutions, community groups, and youth influencers in counter-marketing.

Independent Scientific Evaluation

- Fund longitudinal studies on:
- Health effects of non-combustible nicotine.
- Youth uptake trends post-rebranding.
- Pharmacological dependence on lozenges and gums.
- Protect Indian Policy from Industry Lobbying
- Ensure full implementation of WHO FCTC Article 5.3:
- Prohibit the tobacco industry's participation in policy-making.
- Mandate disclosure of interests by officials engaging with stakeholders.

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Conclusion

India's 6.5% GDP growth, demographic dividend, and rising health awareness create both an opportunity and a risk. Tobacco corporations, sensing the decline of traditional products, have rebranded addiction as wellness, hiding nicotine in plain sight. This strategy, if left unchecked, will trap a new generation into lifestyle-driven dependency, undercutting decades of public health gains. World No Tobacco Day 2025's theme, "Unmasking the Appeal," is more than a slogan; it is a clarion call for science-based, ironclad regulation. India must act boldly and systematically, as it once did with ecigarettes, to dismantle this new wave of addiction. The goal must not just be reducing smoking rates, but ensuring a nicotine-free future, grounded in public health, not corporate reinvention.

Which of the following statements about nicotine rebranding in India is/are correct?

- 1.Tobacco companies are increasingly marketing nicotine products as herbal or Ayurvedic.
- 2.Over-the-counter sale of 2mg nicotine lozenges in India is strictly regulated.
- 3. Companies like Philip Morris now refer to themselves as "science-led wellness firms."
- 4. India has banned all forms of nicotine consumption since 2019.

Select the correct code:

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

Answer: b) 1 and 3 only

Explanation:

Statement 1 Correct: Tobacco companies in India have been rebranding nicotine products by marketing them as herbal or Ayurvedic. This strategy aims to align with traditional wellness narratives and potentially circumvent stringent tobacco regulations.

Statement 2 Incorrect: In India, 2mg nicotine lozenges are classified under Schedule K of the Drugs and Cosmetics Act, allowing them to be sold over-the-counter without a prescription. However, there have been discussions and recommendations to regulate higher-dose nicotine replacement therapies more strictly.

Statement 3 Correct: Companies like Philip Morris have been repositioning themselves as "science-led wellness firms," focusing on reduced-risk products and wellness-oriented branding to adapt to changing consumer perceptions and regulatory environments.

Statement 4 Incorrect: India banned Electronic Nicotine Delivery Systems (ENDS), including e-cigarettes, in 2019. However, this ban does not extend to all forms of nicotine consumption. Traditional tobacco products like cigarettes and smokeless tobacco remain legal, though regulated.



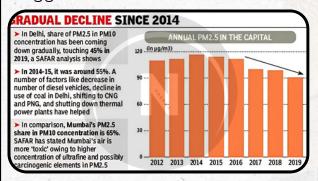




Why PM2.5 Toxicity May Be More Dangerous Than Air Pollution Levels Show

Why in the News?

A groundbreaking study conducted over Kolkata, recently published in the journal Science of the Total Environment (December 2024), has raised new alarms about air pollution in India. Titled "Contrasting features of winter-time PM2.5 pollution and PM2.5-toxicity based on oxidative potential", the research focuses not merely on the amount of PM2.5 (particulate matter) present in the air but on how toxic these particles become at different concentrations. It reveals that PM2.5 toxicity increases sharply beyond a certain threshold, especially during winter, making air pollution far more dangerous than concentration-based metrics alone suggest.



Background What is PM2.5?

PM2.5 refers to particulate matter with a diameter of less than 2.5 micrometres, about 3% of the diameter of a human hair. Due to their small size, these particles can deeply penetrate the lungs and even enter the bloodstream, causing a wide range of health issues, including:

- Respiratory diseases (e.g., asthma, bronchitis)
- Cardiovascular disorders
- Stroke
- Premature mortality

Air Pollution in India: A Chronic Health Crisis

India is home to 7 of the world's 10 most polluted cities, according to various global reports. The Indo-Gangetic Plain, in particular, is an air pollution hotspot due to:

- Vehicular emissions
- Industrial activities
- Biomass and solid waste burning
- Dust from construction and roads To combat this, India has adopted National Ambient Air Quality Standards (NAAQS). For PM2.5, the prescribed safe limits are:
 - Annual average: 40 μg/m³
 - 24-hour average: 60 µg/m³

However, these standards focus only on concentration, not on toxicity, thus potentially underestimating the real health risks.

Features of the Study

• First-of-its-Kind in India: This is the first long-term (2016–2023) study in India to analyse how PM2.5 toxicity, measured through oxidative potential, varies with concentration. It moves beyond traditional methods of measuring pollution, which often fail to capture the actual health risk.

The study finds that:

- Toxicity begins to spike once PM2.5 concentrations exceed 70 μg/m³.
- Toxicity continues to rise till around 130 µg/m³, after which it plateaus.





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• No concentration is completely safe, but health risks rise disproportionately after the 70 µg/m³ mark.

Oxidative Potential as a Measure of Toxicity The study uses oxidative potential (OP) to assess how toxic the PM2.5 particles are. OP is the capacity of particles to produce reactive oxygen species (ROS) in the human body, key culprits in causing oxidative stress and cell damage.

Seasonal and Source-Based **Variations**

- Winter months showed peak toxicity levels, correlating with higher pollution due to temperature inversions, biomass burning, and low wind speeds.
- Sources like biomass burning and solid waste combustion contributed more significantly to toxicity than vehicular emissions.

Geographic Relevance

 While the findings are specific to Kolkata, the study suggests that toxicity thresholds may vary across Indian cities, depending on local pollutant profiles.

Why Toxicity Matters More Than Concentration

The Body's Tolerance and Overload At low concentrations, the body can manage PM2.5 exposure using its antioxidant defences. However, once pollutants cross a certain threshold:

- The production of ROS by the immune system becomes excessive.
- Antioxidant capacity is overwhelmed, leading to oxidative stress, cell damage, and increased disease burden.

Double-Edged Nature of ROS

- · ROS help in fighting off foreign particles, but can also attack healthy tissues when unregulated.
- High ROS levels damage lungs, heart, and brain tissues, potentially leading to irreversible health impacts.

Hidden Risks in "Moderate" **Pollution**

The study debunks the myth that moderate PM2.5 levels (e.g., 50–60 µg/m³) are "safe". In Kolkata:

- There's little difference in toxicity between 30 and 60 μ g/m³.
- But a sudden spike in toxicity occurs beyond 70 µg/m³, underlining the non-linear health risk curve.

Challenges **Absence of Toxicity-Based Standards**

- India lacks toxicity-based benchmarks in its air quality regulations.
- Current norms are concentrationcentric, which ignore the qualitative aspects of pollution, like source and chemical composition.

One-Size-Fits-All Policy Approach

- The same PM2.5 limits apply to all cities despite source variations — for example, crop burning in Punjab vs. industrial emissions in Delhi.
- This leads to ineffective policy design, which fails to mitigate city-specific risks.

Gaps in Public Awareness and **Health Advisories**

- Health warnings are based on the Air Quality Index (AQI), which doesn't consider toxicity.
- People may underestimate risks during "moderate" AQI days, even when toxicity is dangerously high.



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Scientific and Infrastructure Deficits

- Limited research infrastructure and funding for real-time toxicity monitoring.
- Monitoring stations across India largely report mass concentration, not oxidative potential or chemical composition.

Inadequate Health Surveillance

- No routine health tracking to correlate disease trends with toxic pollution episodes.
- Weak data integration between health departments and pollution control boards.

Way Forward Adopt Toxicity-Based Air Quality Standards

- Introduce oxidative stress indicators in national air quality monitoring.
- Develop toxicity thresholds for different cities, based on local source apportionment studies.

Revamp the Air Quality Index (AQI)

- Include toxicity-weighted scores in AQI calculations.
- Update public advisories to reflect real health threats, not just massbased metrics.

Source-Specific Mitigation Strategies

- Enforce seasonal bans or curbs on biomass and garbage burning.
- · Promote clean fuels and solid waste management, particularly in winter months.

Strengthen Monitoring Infrastructure

- Expand the Central Pollution Control Board (CPCB) network to measure chemical speciation and OP.
- Collaborate with research institutions for multi-city longitudinal studies.

Health-Focused Urban Planning

- Establish buffer zones, especially near hospitals and schools, during hightoxicity days.
- Encourage urban greening and lowemission transport corridors.

Public Awareness and Behavioural Change

- Educate citizens about toxicity risks, not just pollution levels.
- Promote indoor air quality solutions like HEPA filters, especially for vulnerable groups.

Conclusion

The Kolkata study is a wake-up call for India's air pollution policy. It challenges the long-standing reliance on concentration-based metrics, revealing that toxicity, not just quantity, determines health outcomes. As urban India continues to grapple with worsening air quality, toxicity-based thresholds and city-specific interventions are essential for protecting public health. Air that appears only "moderately polluted" may be silently toxic, especially during winter months. The time to shift from mass-based to risk-based pollution governance is now.

Main Question:

"India's air quality standards focus on PM2.5 concentration, but recent evidence suggests that toxicity may be a more accurate indicator of health risk." Critically examine this assertion in light of recent scientific findings. Also, suggest policy measures to incorporate toxicity into India's air quality management framework. (250 words)

Concerning the recent study on PM2.5 toxicity in Indian cities, consider the following statements:



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- 1.PM2.5 oxidative potential (OP) remains constant regardless of the source of emission, as toxicity depends solely on the concentration of particles.
- 2.The study finds that the human body's antioxidant defence becomes ineffective beyond a threshold PM2.5 concentration of around 70 µg/m³, leading to a non-linear rise in toxicity.
- 3.The National Ambient Air Quality
 Standards (NAAQS) in India currently
 incorporate both PM2.5
 concentration and oxidative stress
 indicators in their permissible limits.

• Statement 3 is incorrect: India's current air quality standards under NAAQS are based solely on mass concentration (µg/m³). There is no incorporation of toxicity levels or oxidative stress indicators into the regulatory framework yet.

Which of the statements given above is/are correct?

A. 1 and 2 only

B. 2 only

C. 1 and 3 only

D. 1, 2 and 3

Correct Answer: B. 2 only

Explanation:

- Statement 1 is incorrect: PM2.5 oxidative potential (a proxy for toxicity) does not remain constant across sources. The study reveals that toxicity varies significantly depending on the source, e.g., biomass burning contributes more to toxicity than vehicular emissions. Hence, the chemical composition (and not just the concentration) plays a key role.
- Statement 2 is correct: The study identifies a toxicity threshold at around 70 µg/m³, beyond which the body's antioxidant defence mechanisms become overwhelmed. This leads to oxidative stress and nonlinear escalation in health risks, especially in winter months.

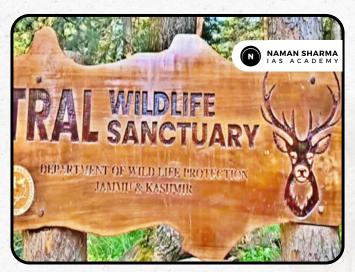
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Tral Wildlife Sanctuary

Why in the News?

Recently, the Central Government officially notified an Eco-Sensitive Zone (ESZ) around the Tral Wildlife Sanctuary in Pulwama district, Jammu and Kashmir, to regulate unsustainable development activities near this ecologically significant area. This step aims to bolster the protection of critical habitats for endangered species like the Hangul.



Background

- Tral Wildlife Sanctuary is located in the southeastern part of the Kashmir Valley within the Pulwama district.
- It is one of the few remaining habitats for the critically endangered Hangul deer (Cervus hanglu hanglu) outside the Dachigam National Park.
- The sanctuary spans various Himalayan vegetation zones, ranging from moist temperate forests to alpine regions.
- It also serves as a vital corridor for wildlife migration, especially for Hangul, which relies on this connectivity for genetic exchange and survival.



 The idea of Eco-Sensitive Zones (ESZs) stems from the Supreme Court's directions and the Environment (Protection) Act, 1986, which mandates the creation of buffer zones around protected areas to minimise anthropogenic pressure.

Features of Tral Wildlife Sanctuary

Ecological Significance

- · Acts as a biodiversity hotspot in the Kashmir Himalayas.
- Functions as a protected wildlife corridor, especially for the Hangul and other endemic species.

Unique Flora

- Trees: Aesculus indica, Fraxinus hookeri, Parrotiopsis jacquemontiana, Juglans regia.
- Shrubs: Indigofera heterantha, Lonicera, Viburnum, Skimmia laurel, Jasminum species.

Diverse Fauna

- Houses 15 species of mammals, including Kashmir Musk Deer, Kashmir Grey Langur, and more.
- Home to over 200 bird species, including rare and migratory birds.
- Critical for the survival of the Hangul, whose population is under severe decline.

Vegetation Zones

· Himalayan moist temperate, subalpine, and alpine forests make it ecologically diverse and climatically sensitive.

Challenges

Encroachment and Land Use Change

 Unregulated human activity and agricultural expansion threaten the buffer zones.



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- Encroachments into forested areas reduce the habitat available for wildlife.
- Conflict Between Development and Conservation
- Infrastructure projects like roads, tourism infrastructure, and buildings near the sanctuary raise conservation concerns.

Poaching and Livestock Grazing

· Hangul and other endangered species face threats from illegal hunting and competition with livestock.

Climate Change

- Alters vegetation zones and disturbs wildlife migration patterns.
- Melting snow and changing rainfall patterns impact high-altitude ecosystems.

Weak Implementation of ESZ Guidelines

- Poor coordination between the Centre, the State, and the local bodies.
- Lack of community awareness and stakeholder participation in conservation policies.

Way Forward Strict Enforcement of ESZ Norms

- All prohibited and regulated activities under the ESZ notification should be implemented rigorously.
- Encourage eco-friendly livelihood options for local communities.

Community Participation

- Engage local communities in conservation efforts through ecotourism and awareness drives.
- Introduce benefit-sharing models to incentivise conservation.

Scientific Habitat Management

- Regular surveys of the Hangul population and vegetation health.
- Establish wildlife corridors connecting Tral to Dachigam and other habitats to promote species migration.

Integrated Development Planning

- Ensure that developmental planning in the region includes ecological assessments.
- Create buffer development zones to limit harmful construction near core wildlife areas.

Reviving the Hangul Recovery Programme

- Boost the Hangul recovery programme, including captive breeding, genetic studies, and rewilding efforts.
- Enhance patrolling and antipoaching mechanisms.

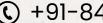
Conclusion

The notification of an Eco-Sensitive Zone around the Tral Wildlife Sanctuary is a critical conservation milestone for the Kashmir region. With appropriate policy implementation, scientific management, and community-based conservation, this step can revive the fragile ecosystem of South Kashmir and give the critically endangered Hangul a real shot at survival.

Q. Recently, an Eco-Sensitive Zone (ESZ) was notified around Tral Wildlife Sanctuary in Jammu and Kashmir. Which of the following statements regarding the sanctuary and the ESZ notification is/are correct?



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- 1.Tral Wildlife Sanctuary is the only habitat of the Hangul deer in India.
- 2.The sanctuary lies in the southeastern part of Kashmir Valley and functions as a crucial wildlife corridor.
- 3. Eco-Sensitive Zones are notified under the Wildlife (Protection) Act, 1972, to prohibit all human activities within a 10 km radius of sanctuaries.
- 4. The sanctuary spans vegetation zones from moist temperate forests to alpine regions.

• Statement 4 Correct: The sanctuary comprises Himalayan moist temperate, sub-alpine, and alpine forests, indicating its ecological and climatic diversity.

Select the correct option:

- A) 1 and 3 only
- B) 2 and 4 only
- C) 1, 2, and 3 only
- D) 2, 3, and 4 only

Correct Answer: B) 2 and 4 only

Explanation:

- Statement 1 Incorrect: Tral Wildlife Sanctuary is one of the remaining habitats of the Hangul (Kashmir Stag), but it is not the only one. The primary habitat is Dachigam National Park, and Tral acts as a supplementary habitat and corridor.
- Statement 2 Correct: The sanctuary lies in the southeastern part of Kashmir Valley and serves as a crucial corridor for wildlife, especially Hangul, facilitating genetic exchange and seasonal migration.
- Statement 3 –Incorrect: Eco-Sensitive Zones (ESZs) are notified under the Environment (Protection) Act, 1986, not the Wildlife Protection Act, 1972. Moreover, not all activities are prohibited; instead, they are categorised into prohibited, regulated, and permissible based on ecological impact.

17





300th Birth Anniversary of Lokmata Ahilyabai Holkar

Why in the News?

Recently Prime Minister of India paid tribute to Lokmata Ahilyabai Holkar on her 300th birth anniversary during the 'Mahila Sashaktikaran Mahasammelan' in Bhopal. He inaugurated infrastructure projects, released commemorative coins and stamps, and launched women empowerment initiatives, honouring her legacy of progressive governance and cultural contributions.



About Ahilyabai Holkar:

- Early Life: Born on May 31, 1725, in Chondi village (in erstwhile Ahilyanagar District), Maharashtra, Ahilyabai belonged to the Shephard community. Her father, a village head, taught her to read and write- rare for girls then.
- Marriage and Loss: Married to Khande Rao Holkar in 1733, she was widowed in 1754. Her father-in-law, Malhar Rao Holkar, saw her potential and stopped her from committing sati.

- Rise to power: After the deaths of her husband, father-in-law, and son, she became ruler of Malwa in 1765 with support from the Peshwa and her army.
- Capital and Leadership: She moved the capital to Maheshwar, making it a centre of culture, governance, and trade.
- Military and Administration:
 Ahilyabai personally led armies and appointed Tukoji Rao Holkar as military commander. She promoted justice, welfare, and agricultural growth.

Legacy and Contributions:

- Temple Restoration: Rebuilt the present-day Kashi Vishwanath Temple in 1780 and renovated shrines across India, including in Somnath, Haridwar, Pushkar, and Rameswaram.
- Pilgrim Support: Built rest houses, pilgrim shelters, and ghats to support religious travellers.
- Maheshwari Sari and Weavers:
 Promoted the handloom industry, empowering local weavers and women economically.
- Social Reforms: Protected widows' rights, supported tribal communities, and ran a secular and inclusive administration.
- Cultural Patronage: Her court welcomed poets and scholars, including Moropant and Khushali Ram, making Maheshwar an intellectual hub.
- Peaceful Rule: Her 30-year reign was free from war, making Malwa a rare place of peace and prosperity in a chaotic era.
- Recognition: Jawaharlal Nehru called her an able ruler; British historian John Keay called her "The Philosopher Queen".



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 Ongoing Honour: A proposal exists to rename Ahmednagar in Maharashtra as Punyashlok Ahilyadevi Nagar in her memory.

Why was Lokmata Ahilyabai Holkar recently in the news in 2025?

A. A new biography was released on her life and legacy

B. The Government of India declared her birthday a national holiday

C. The Prime Minister paid tributes to her on her 300th birth anniversary

D. The city of Indore was renamed in her honour

Correct Answer: C. The Prime Minister paid tributes to her on her 300th birth anniversary

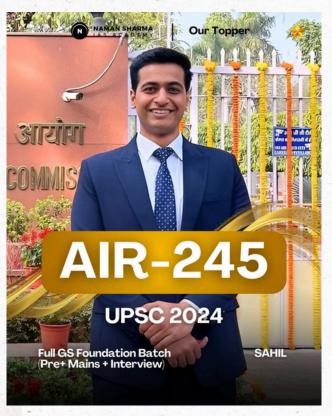
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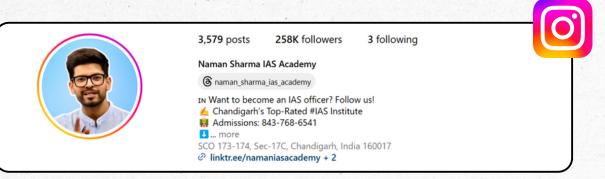
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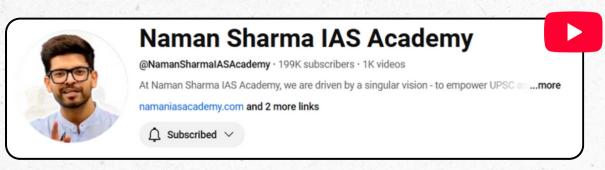


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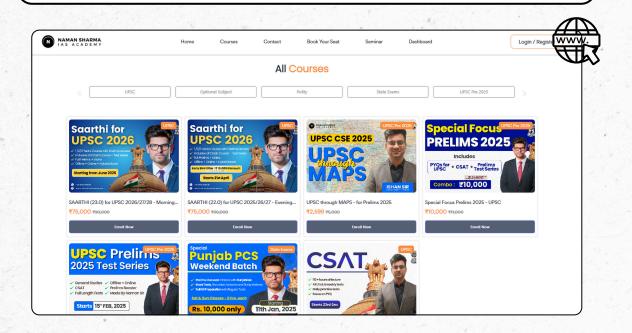






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