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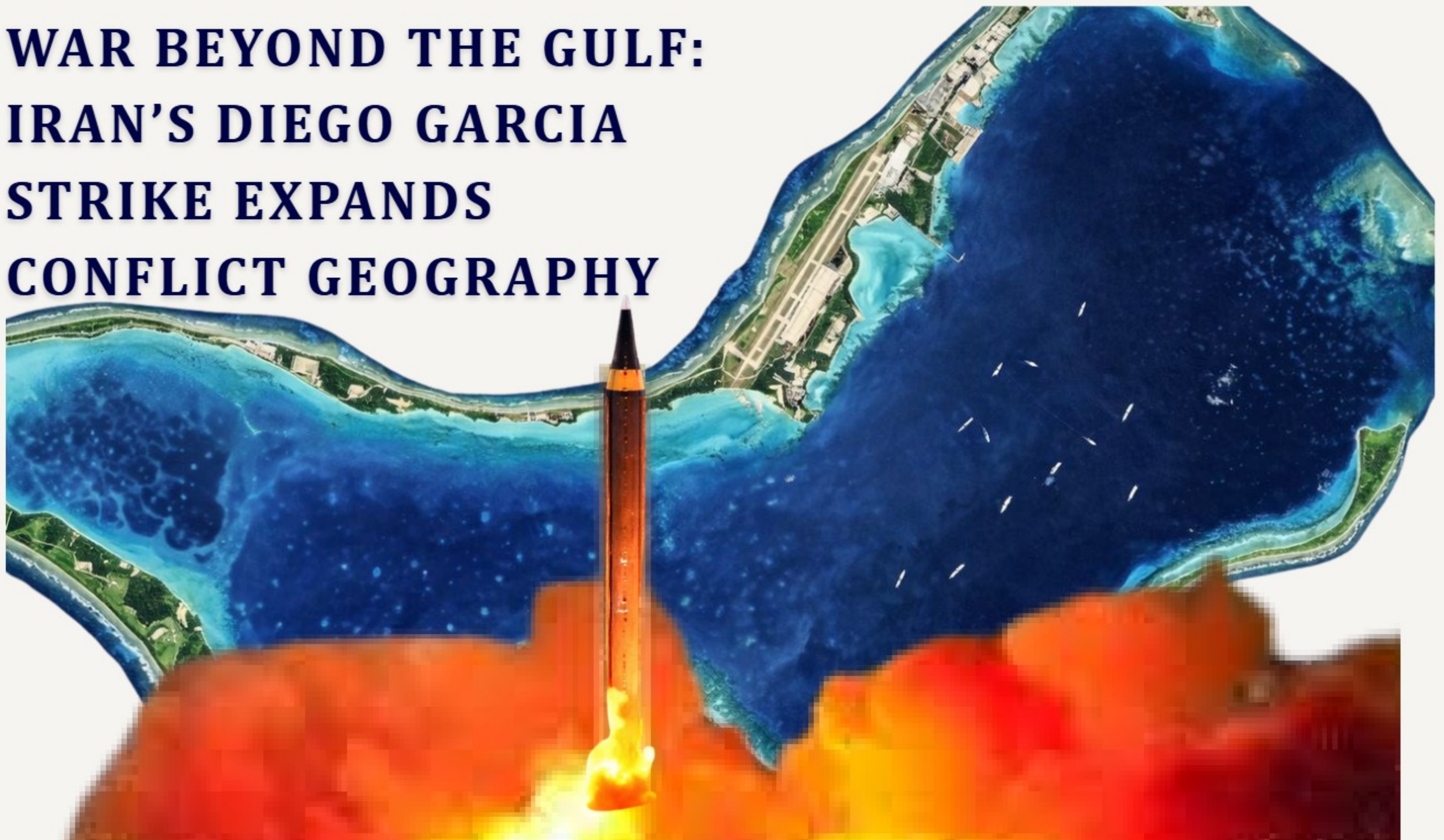


UPSC Spotlight - focus page for prelims 2026

The Pala Civil Times special feature



WAR BEYOND THE GULF: IRAN'S DIEGO GARCIA STRIKE EXPANDS CONFLICT GEOGRAPHY



Iran's attempted strike on Diego Garcia on March 21, 2026 marked a significant escalation in the ongoing conflict involving the United States and its allies. Tehran launched two ballistic missiles targeting the joint US-UK military base located roughly 4,000 km away, representing the longest-range strike it has attempted so far. Although both missiles failed to reach their target—one malfunctioning mid-flight and the other intercepted by a US naval defence system—the attack is notable because it indicates the operational use of intermediate-range ballistic missiles (IRBMs). This suggests that Iran's missile capabilities extend far beyond its previously stated limit of 2,000 km, raising concerns among global powers about its actual strategic reach. The choice of Diego Garcia, a critical hub for US bomber operations and naval deployments in the Indo-Pacific.

This underscores its strategic importance in controlling key maritime chokepoints and projecting military power across regions. This development is likely to have far-reaching implications for the trajectory of the conflict and global security calculations. The attempted strike signals a potential widening of the conflict beyond West Asia, bringing strategically vital regions of the Indian Ocean into focus. It may prompt stronger military responses, recalibration of defence postures, and increased deployment of missile defence systems by involved and neighbouring countries. The incident also challenges earlier assertions that Iran's missile programme is purely defensive, thereby intensifying geopolitical tensions and mistrust. As escalation risks grow, the conflict could become more protracted and complex, with greater involvement of international actors and heightened threats to global trade routes and energy security.

Madhya Pradesh bets big on AI to improve public services, decision-making across depts

Madhya Pradesh is moving towards institutionalising artificial intelligence (AI) in governance, marking a transition from isolated pilot projects to a structured, state-wide deployment. This initiative reflects a broader shift in public administration, where data-driven tools are increasingly being used to improve efficiency and service delivery.

From Insurgency to Negotiation

The initiative has been formalised through the announcement of a State AI Mission under the leadership of Chief Minister Mohan Yadav. The mission places **predictive governance** at its core, aiming to anticipate challenges and enable proactive decision-making across sectors.

Core Objective: Predictive Governance

The central idea behind the mission is to use AI to identify potential risks in advance. Key sectors such as agriculture, health, nutrition, and disaster management will benefit from predictive insights, allowing authorities to respond more effectively and minimise adverse impacts.

Predictive Governance: A Forward-Looking Approach

Predictive governance represents a **strategic shift in public administration by using data analytics, artificial intelligence, and forecasting models to anticipate future challenges**. Instead of reacting to crises after they occur, this approach focuses on early identification of risks and opportunities. It relies on **continuous monitoring** of social, economic, and environmental indicators, enabling governments to take timely and adaptive policy actions. As a result, governance systems become more **efficient, responsive, and future-oriented**.

At its core, predictive governance strengthens decision-making by **providing insights into likely future scenarios**. This enables policymakers to **allocate resources more effectively** and **design policies that are resilient to uncertainties**. Decisions are not made in isolation but are informed by data trends and projections, allowing governments to mitigate potential risks such as climate impacts or resource shortages.

The government has emphasised the adoption of responsible AI principles, including transparency, auditability, and privacy protection. With human oversight built into the system, the initiative seeks to build public trust while ensuring security. If implemented effectively, this model could serve as a template for AI-driven governance across other states in India.



Administrative Transformation using AI Tools

Officials will be equipped with AI-based tools for drafting, data analysis, and decision support. These tools are expected to enhance administrative efficiency by enabling faster processing of information and more informed policymaking. The state aims to expand AI applications beyond pilot projects and integrate them into major government schemes.

Phased Implementation Strategy

The rollout of the AI mission will take place in a phased manner. During 2026–27, the focus will be on consolidating existing AI initiatives and strengthening infrastructure. In 2027–28, successful use cases will be scaled across departments. From 2028 onwards, AI is expected to become a permanent institutional feature within governance systems.

Sectoral Applications of AI

AI is already being integrated into multiple sectors. In agriculture, tools such as AI-based Girdawari and GIS platforms are being used for crop mapping and yield estimation, supporting schemes like the Pradhan Mantri Fasal Bima Yojana. In social sectors, initiatives like Suman Sakhi focus on maternal and child health monitoring, while platforms such as MP Kaushal Rath and GyanKosh connect youth to skill development and employment opportunities.

Improving Welfare Delivery

Digital platforms like MP e-Seva, Sampada 2.0, and Samagra are incorporating AI features such as eligibility identification, facial recognition, and real-time tracking. These technologies aim to ensure targeted delivery of benefits, particularly for farmers, rural populations, youth, and underprivileged groups, thereby improving inclusivity and efficiency.

Why is Israel attacking Lebanon?

As the ongoing war involving Israel, Iran, and the United States enters its fourth week, a parallel and intense conflict has emerged in Lebanon. Israel has launched a ground offensive against Hezbollah, accompanied by large-scale air strikes in southern Lebanon and parts of Beirut. The offensive has resulted in significant casualties and mass displacement, indicating a major escalation beyond the primary theatre of conflict.

Trigger for the Offensive

The latest hostilities come despite a ceasefire agreement reached in November 2024 between Israel and Hezbollah. Tensions persisted due to intermittent air strikes and limited retaliation. The situation escalated sharply after the killing of Ali Khamenei in February 2026, which prompted Hezbollah to launch large-scale rocket attacks on northern Israel, triggering a full-fledged Israeli ground response.

Historical Context of the Conflict

The Israel-Lebanon conflict has deep historical roots. Israeli incursions in 1978 and 1982 aimed to push out the Palestine Liberation Organisation, but these interventions contributed to the rise of Hezbollah as a Shia resistance force backed by Iran. Over time, Hezbollah evolved into a major political and military actor in Lebanon, particularly after Israel's withdrawal in 2000 and the 2006 war.

Nature and Strength of Hezbollah

Hezbollah is widely regarded as a powerful non-state military actor with extensive battlefield experience. It played a significant role in the Syrian Civil War, supporting the government of Bashar al-Assad. The group possesses a large arsenal of rockets and missiles and operates as a "state within a state" in Lebanon. However, recent targeted attacks on its leadership and infrastructure have weakened its operational capacity.

The conflict has severe humanitarian consequences, with large-scale displacement and civilian suffering. Strategically, it highlights the persistence of non-state actors in regional conflicts and the limitations of purely military solutions. The escalation also risks widening the conflict further, underscoring the fragile security dynamics of West Asia and the urgent need for diplomatic intervention.



Changing Regional Dynamics

The fall of the Assad regime in Syria disrupted a crucial supply and communication link between Iran and Hezbollah. With Russia preoccupied elsewhere and Iran facing constraints, Hezbollah's strategic position weakened. Nevertheless, the group has used this period to regroup, rebuild its command structure, and prepare for renewed confrontation.

The Durand Line Dispute: Historical Root of Conflict

Israel's stated objective is to dismantle Hezbollah's military capabilities and push its forces away from the border to create a buffer zone within Lebanese territory. This includes targeting supply routes, issuing evacuation orders, and pressuring the Lebanese government to disarm Hezbollah. The strategy reflects a continuation of past attempts to neutralize the group's influence.

Current Ground Situation

The ground offensive is concentrated in southern Lebanon, particularly in strategically important hilltop regions such as Khiam. Israeli forces are encountering stiff resistance from Hezbollah fighters employing asymmetric warfare tactics. Despite sustained air and ground operations, Hezbollah continues to launch rockets and drones, demonstrating its remaining operational strength.

Iran war stress on rupee: How India has used forex reserves to tide over past global uncertainties

Foreign exchange reserves act as a crucial buffer during economic uncertainty by supporting a country's macroeconomic stability. Even when the current account deficit remains low, large capital outflows can create pressure on the currency. In such situations, the Reserve Bank of India intervenes by selling foreign exchange reserves to stabilise the rupee and manage volatility.

Impact of the Ongoing West Asia Conflict

The recent escalation in West Asia has triggered financial stress in India. Within two weeks, forex reserves declined by \$19 billion, the rupee depreciated by nearly 2.9 per cent, and stock markets witnessed a sharp fall. Increased foreign portfolio investment outflows and rising crude oil prices have added to concerns regarding the balance of payments and future stability.

Current Strength of India's Forex Position

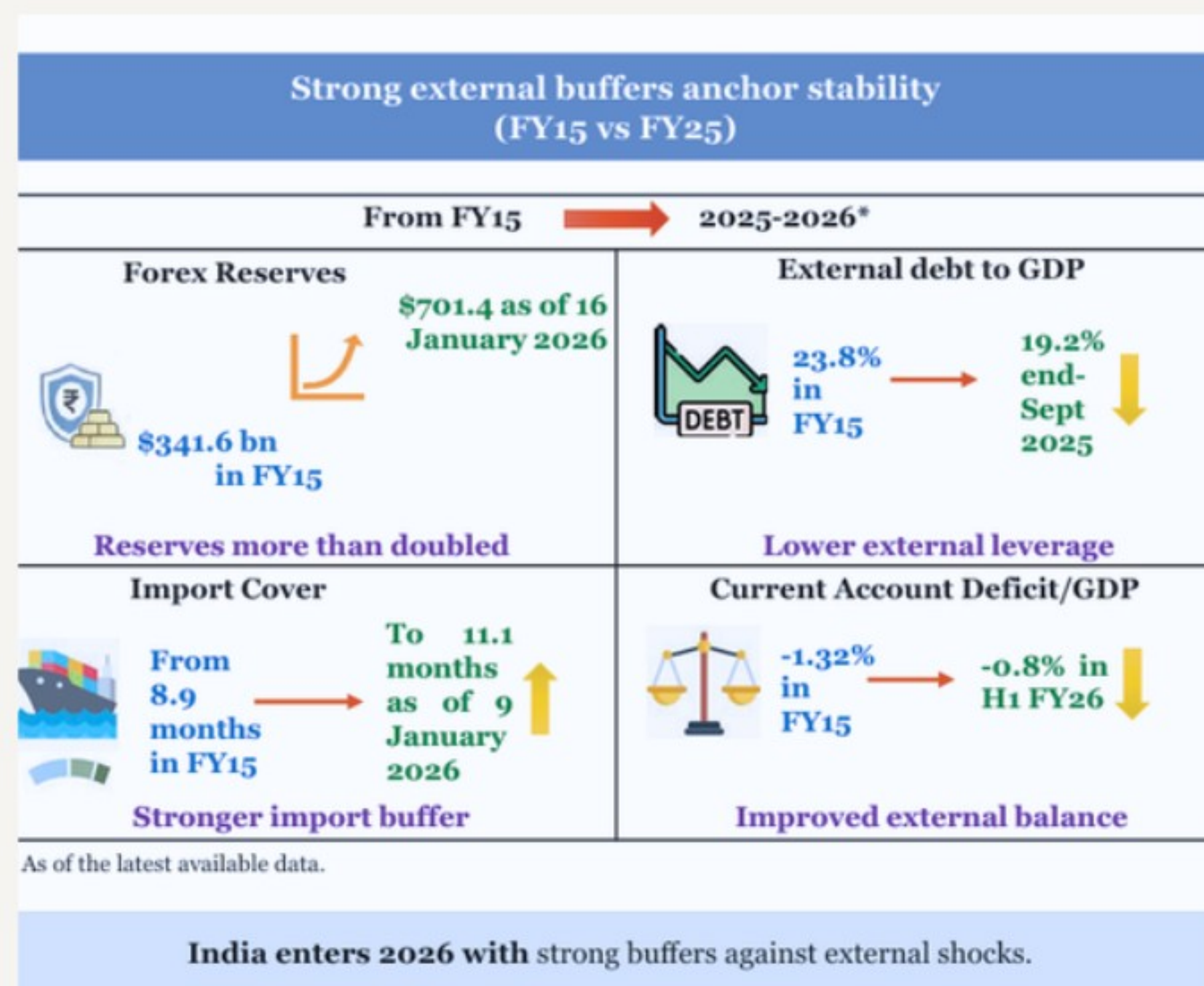
Despite recent pressures, India's forex reserves stood at about \$709.75 billion as of March 2026. This level is considered comfortable as it can cover more than 12 months of imports, well above the global benchmark of 8–10 months. However, continued capital outflows and global uncertainties pose potential risks.

Lessons from the 1991 Balance of Payments Crisis

India's most severe forex crisis occurred in 1991 when reserves fell to levels sufficient for only 2–3 weeks of imports. Triggered by rising oil prices and capital flight, the crisis forced India to pledge gold reserves and devalue the rupee. It also led to landmark economic reforms under P. V. Narasimha Rao and Manmohan Singh, including liberalisation and opening up of the economy.

Asian Financial Crisis (1997–98)

The Asian financial crisis led to moderate pressure on India due to capital outflows and reduced export competitiveness. Forex reserves declined slightly, and the rupee depreciated. However, India remained relatively insulated because of its controlled capital account and stronger regulatory framework.



Global Financial Crisis (2008–09) and Taper Tantrum (2013)

The global financial crisis caused significant capital outflows, reducing forex reserves sharply and weakening the rupee. Similarly, during the Taper Tantrum, signals from the U.S. Federal Reserve led to large capital withdrawals from emerging markets like India. This resulted in currency depreciation and forced strong policy responses to stabilise the economy.

Recent Shocks: COVID-19 and Russia–Ukraine War

The COVID-19 pandemic triggered initial capital outflows and rupee depreciation, although reserves recovered later due to strong inflows. The Russia–Ukraine War further strained the economy by increasing crude oil prices, widening the current account deficit, and reducing forex reserves significantly due to sustained interventions.

Current Outlook

India's experience shows that forex reserves are essential for managing external shocks and maintaining economic confidence. While the current reserve levels provide a strong cushion, persistent global uncertainties, capital outflows, and rising import bills highlight the need for prudent macroeconomic management. The ability to withstand such shocks depends not only on reserve levels but also on timely policy responses and structural economic resilience.

India study maps antibiotic resistance in four cities, finds bacteria using similar survival strategies

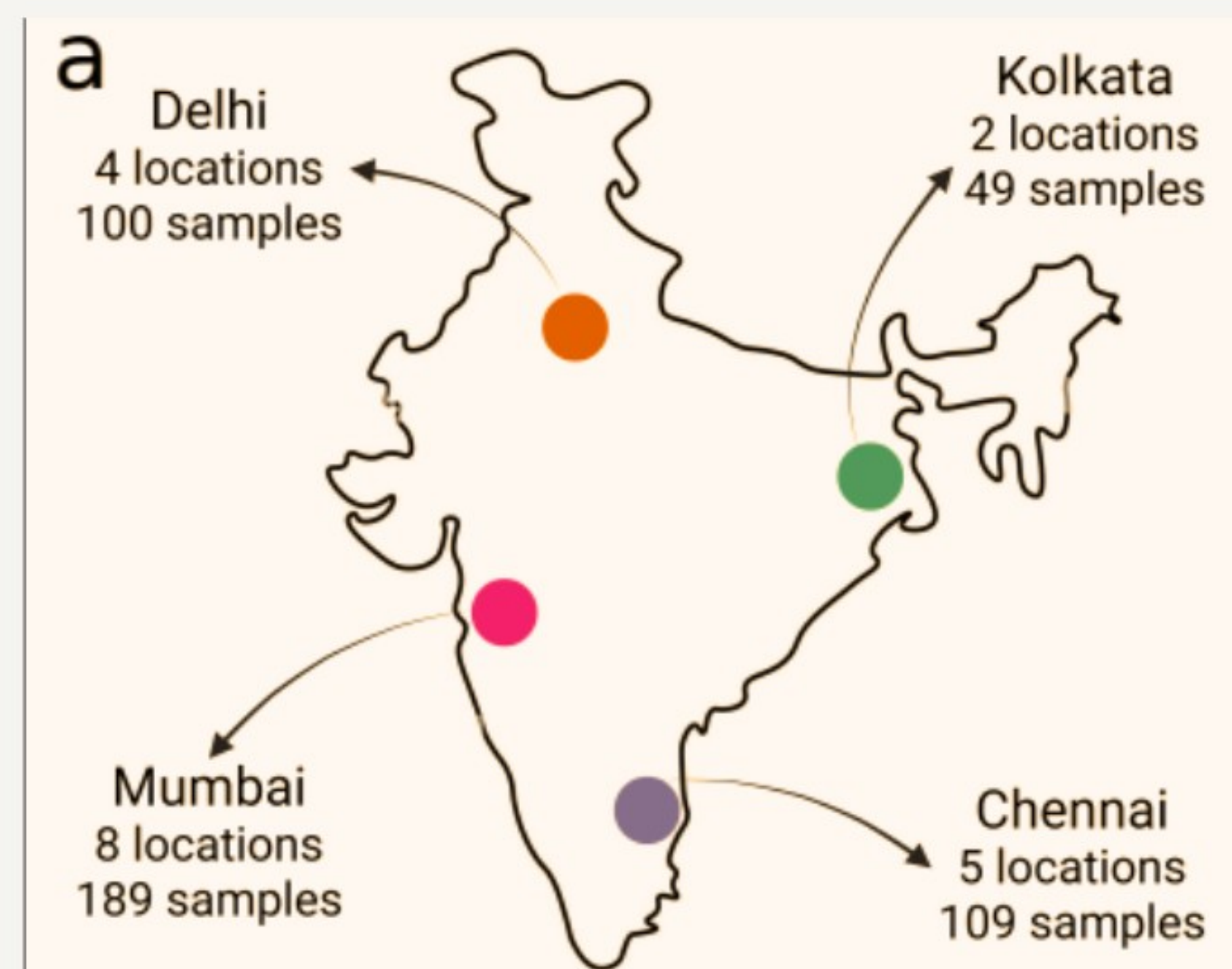
Antimicrobial resistance (AMR), where bacteria evolve to resist antibiotics, is emerging as a major global public health threat. Despite its growing impact, India has lacked detailed, location-specific data on how resistant bacteria are spreading in everyday environments. This study addresses that critical gap by focusing on urban wastewater as a key surveillance source.

About the Study

A first-of-its-kind study conducted by the CSIR-Centre for Cellular and Molecular Biology and partner institutions mapped AMR patterns across four major Indian cities—Delhi, Mumbai, Kolkata, and Chennai. Published in the journal *Nature Communications*, the study analysed 447 wastewater samples collected from 19 sites between March 2022 and March 2024.

Methodology: Advanced Genetic Analysis

The researchers used a sophisticated technique called shotgun metagenomics, which allows detailed examination of bacterial genes directly from environmental samples. This method provides deeper insights compared to traditional lab culture techniques, enabling scientists to understand not just which bacteria are present, but how they develop resistance.



The researchers recommend scaling up wastewater-based pathogen surveillance as a cost-effective and practical solution. They have developed a standard protocol that allows samples to be stored at 4°C for up to seven days without compromising quality. This enables easier transport to centralized labs, making large-scale monitoring feasible even in resource-limited settings.



Diversity with Common Patterns

The study revealed that while different cities host different dominant bacteria, the mechanisms used to resist antibiotics are strikingly similar across locations. For instance, *Klebsiella pneumoniae* is more prevalent in Chennai and Mumbai, whereas *Pseudomonas aeruginosa* is more common in Kolkata. However, the genetic strategies enabling resistance remain consistent nationwide.

Mechanisms of Resistance

Bacteria develop resistance through specific genes that help them survive antibiotic exposure. These genes can strengthen bacterial cell walls, break down antibiotic molecules, or actively expel them. Importantly, these resistance genes can spread not only to offspring but also horizontally to other bacteria, accelerating the spread of resistance.

Antibiotic Classes and Gene Transfer

The study also found that resistance genes against certain antibiotic classes, such as tetracyclines and beta-lactams, are more easily shared among bacteria compared to macrolides. This highlights the varying vulnerability of different antibiotic groups to resistance spread.

Public Health Implications

The findings underline the urgent need for robust surveillance systems in India. The presence of similar resistance mechanisms across cities suggests that AMR is not a localized issue but a widespread and interconnected challenge. Without timely monitoring, resistant pathogens could spread rapidly and undermine treatment effectiveness.

Prelims 2026 Most Probable High-Yield Topics

India's Missile Programme Developments

India's missile programme is a key pillar of its nuclear deterrence strategy against Pakistan and China. It is guided by the doctrine of **credible minimum deterrence**. Over time, India has diversified its delivery systems—land, sea, and air-based—while also investing in advanced technologies such as MIRVs and cruise missiles, reflecting a gradual evolution in strategic capability.

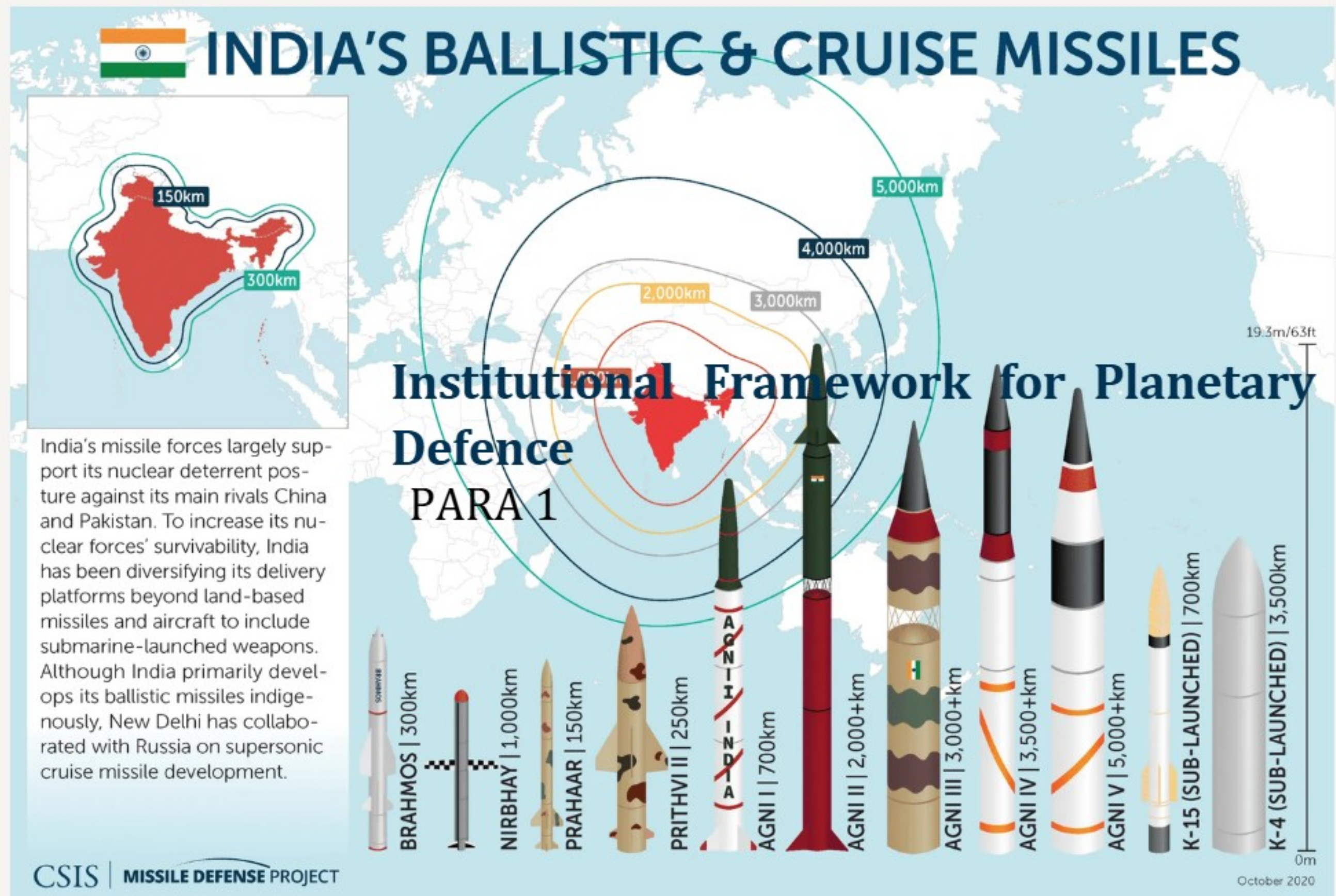
Missiles of India

Agni-I (SRBM)

- Agni-I is a short-range ballistic missile (700–1200 km) capable of carrying nuclear warheads.
- It is road and rail mobile, enhancing survivability and flexibility.
- It was inducted in 2007 and is part of the Strategic Forces Command.
- It is derived from SLV-3 technology and uses solid propellant.

Agni-II (MRBM)

- Agni-II is a medium-range ballistic missile (2000–3500 km) with nuclear capability.
- It is a two-stage solid-fuel missile with improved guidance (INS/GPS).
- It was inducted in 2004 and later achieved full operational capability.
- It has high accuracy (~40 m CEP) and a maneuverable reentry vehicle.



Agni-III (IRBM)

- Agni-III is an intermediate-range ballistic missile (3000–3500 km) with heavier payload capacity (1500 kg).
- It uses a **two-stage solid propulsion** system with advanced thrust vector control.
- It has high accuracy (~40 m CEP) and can carry nuclear or conventional warheads.

Agni-IV (Advanced IRBM)

- Agni-IV is an upgraded intermediate-range missile (3000–4000 km) derived from Agni-II.
- It incorporates advanced guidance systems (ring laser gyros) and improved propulsion.
- It is road-mobile, enhancing survivability.
- It is capable of delivering nuclear or conventional payloads with high accuracy (<100 m CEP).
- It represents technological refinement and extended reach in India's arsenal.

Prithvi-II (SRBM)

- Prithvi-II is a short-range ballistic missile (250–350 km) used by the Indian Air Force.
- It is liquid-fueled and capable of carrying nuclear and conventional warheads.
- It uses GPS + inertial guidance, achieving ~50 m accuracy.

Prelims 2026 Most Probable High-Yield Topics

Dhanush (Ship-Launched Ballistic Missile)

- Dhanush is a ship-launched ballistic missile (250–400 km) derived from the Prithvi series.
- It enhances sea-based deterrence capability, contributing to second-strike potential.
- It is capable of carrying nuclear or conventional payloads.
- It is deployed on naval platforms like Sukanya-class patrol vessels.

BrahMos (Supersonic Cruise Missile)

- BrahMos is a supersonic cruise missile (300–500 km) developed jointly with Russia.
- It operates at Mach 2–2.8, making interception difficult.
- It can be launched from land, sea, air, and submarines, ensuring versatility.
- It uses ramjet propulsion and advanced guidance systems (INS + GPS + radar).
- Its high speed and precision make it a key conventional strike weapon.
- A hypersonic variant (BrahMos-II) is under development.



Prelims model questions

Q. With reference to Agni-II, consider the following statements:

1. It is a two-stage solid-fuel missile.
2. It uses inertial navigation combined with GPS.
3. It has a payload capacity of about 1000 kg.

Which of the statements given above is/are correct?

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

Answer: (c)

Q. Which of the following correctly describes Prithvi-II?

- (a) A long-range solid-fuel missile
- (b) A short-range liquid-fuel ballistic missile
- (c) A supersonic cruise missile
- (d) A submarine-launched missile

Answer: (b)

Q. With reference to BrahMos missile, consider the following statements:

1. It is a supersonic cruise missile.
2. It uses a ramjet propulsion system.
3. It can be launched from multiple platforms including land, sea, air and sub-surface.

Which of the statements given above is/are correct?

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

Answer: (d)

PRELIMS CORNER :

1) With reference to the Indian economy, consider the following statements: (2022)

1. An increase in Nominal Effective Exchange Rate (NEER) indicates the appreciation of rupee.
2. An increase in the Real Effective Exchange Rate (REER) indicates an improvement in trade competitiveness.
3. An increasing trend in domestic inflation relative to inflation in other countries is likely to cause an increasing divergence between NEER and REER. Which of the above statements are correct?

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

2) With reference to the India economy, what are the advantages of “Inflation-Indexed Bonds (IIBs)”? (2022)

1. The government can reduce the coupon rates on its borrowing by way of IIBs.
2. IIGs provide protection to the investors from uncertainty regarding inflation.
3. The interests received as well as capital gains on IIBs are not taxable. Which of the statements given above are correct?

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

CASE STUDY

Child Marriage and Legal Empowerment in India

The continued prevalence of Child Marriage in India is reflected in a recent case from Jodhpur, where a 21-year-old woman successfully secured annulment of her child marriage conducted at the age of 12. The marriage, performed under community pressure and customary practices such as mausar/nukta pratha, highlights how entrenched social norms often override legal provisions and individual consent.

The case was adjudicated under the Prohibition of Child Marriage Act 2006, which provides that marriages involving minors are voidable at the option of the contracting party. The court observed that child marriage adversely impacts both the present well-being and future prospects of children, reinforcing the need for stricter social and institutional response. A significant aspect of the case is the role of civil society intervention, particularly by Dr Kriti Bharti, whose organisation has been actively working to prevent and annul child marriages. Such interventions help bridge the gap between legal awareness and access to justice, especially in socially conservative settings.

The case also brings out structural issues such as lack of awareness, gender inequality, and fear of social ostracisation, which continue to sustain the practice. At the same time, it demonstrates increasing agency among young women to challenge oppressive practices.



Prelims Corner: Explanations

1) Correct Answer: (c) 1 and 3 only

The question tests conceptual clarity regarding Nominal Effective Exchange Rate (NEER) and Real Effective Exchange Rate (REER).

Statement 1 is correct. NEER represents the value of a country's currency against a weighted basket of foreign currencies, without adjusting for inflation. An increase in NEER indicates that the domestic currency (rupee) has appreciated relative to other currencies.

Statement 2 is incorrect. REER adjusts NEER for inflation differentials between the domestic country and its trading partners. An increase in REER implies that domestic goods have become relatively more expensive compared to foreign goods. This makes exports less competitive and imports cheaper, leading to a loss of trade competitiveness, not an improvement.

Statement 3 is correct. REER is derived by adjusting NEER with the ratio of domestic prices to foreign prices. If domestic inflation rises faster than that of trading partners, REER increases even if NEER remains stable. This creates a divergence between NEER and REER, reflecting weakening external competitiveness.

Thus, while NEER captures nominal exchange movements, REER provides a more accurate picture of real competitiveness, making Statements 1 and 3 correct.

2) Correct Answer: (a) 1 and 2 only

Inflation-Indexed Bonds (IIBs) are financial instruments designed to protect investors from the adverse effects of inflation while helping the government manage its borrowing efficiently.

Statement 1 is correct. IIBs adjust returns in line with inflation, reducing the risk borne by investors. Since these bonds protect the real value of investment, they are considered less risky, allowing the government to offer lower coupon rates compared to conventional bonds. Thus, they can help reduce the cost of borrowing.

Statement 2 is correct. The primary advantage of IIBs is that they provide protection against inflation uncertainty. Both the principal and/or interest payments are indexed to inflation, ensuring that the investor's real purchasing power is preserved, even when prices rise.

Statement 3 is incorrect. There is a common misconception that such bonds enjoy tax benefits. However, in India, both the interest income and inflation-adjusted gains are taxable, and no special tax exemption is provided specifically for IIBs.

Overall, IIBs serve a dual purpose: they safeguard investors from inflation risk and help the government borrow at relatively lower costs, making Statements 1 and 2 correct.





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“Success is the sum of small efforts,
repeated day in and day out.”

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