AXIA IAS ACADEMY

DAILY NEWS ANALYSIS

APRIL 28

CONSISTENT COMPREHENSIVE AND CREDIBLE

UNIQUE AND BEST IN QUALITY

‘New Delhi Declaration’ in the works for upcoming international summit on conservation of big cats

Nikhil Ghanekar
New Delhi, April 27

AHEAD OF the global big cat summit in June, the International Big Cat Alliance (IBCA), headquartered in New Delhi, is deliberating on a New Delhi Declaration, which, if adopted, will be the first international declaration on big cat conservation, *The Indian Express* has learned.

The IBCA secretariat, working alongside the Ministry of External Affairs, has shared a draft of the declaration text with IBCA member countries as well as range countries, two people aware of the matter said.

Prime Minister Narendra Modi is expected to participate in the summit meeting with heads of states and governments from some of the member countries, people aware of the matter said. It is at this summit meeting, likely to be held on June 1, that the political declaration is expected to be placed for adoption.

These seven big cats – tiger, lion, leopard, cheetah, snow leopard, puma and jaguar – face challenges such as deforestation, illegal wildlife trade, and emerging wildlife diseases. FILE

The global big cat summit will be held close on the heels of the Fourth India-Africa Forum Summit on May 31. IBCA currently has 24 member countries, of which 10 are African nations. Kazakhstan, Namibia and Thailand have been granted observer status.

The declaration, it is learned, will include promotion of landscape-level and transboundary habitat connectivity, strengthening cooperation on wildlife crime prevention, mobilisation of finance, and advancing of One Health approach, linking wildlife, livestock and human health, among other things.

The IBCA was launched on April 9, 2023, by PM Modi during the commemoration of 50 years of Project Tiger to create an international platform for the conservation of seven big cats – tiger, lion, leopard, cheetah, snow leopard, puma and jaguar. The summit will also serve as a platform to get more countries to commit to becoming members of the global alliance, it has been learned.

These apex predators are crucial to the respective habitats they occur in across continents, and in maintaining an ecological balance. These seven big cats occur in 95 countries – known as range countries to signify species occurring there in the wild – across Asia, Africa, and the Americas, and face challenges such as deforestation, illegal wildlife trade and poaching, ecosystem changes, and emerging wildlife diseases.

The Union Cabinet had approved IBCA’s establishment with headquarters in India on February 29, 2024.

E. EXPLAINED

India’s bid to earn its stripes

Modelled on the lines of the International Solar Alliance, the International Big Cat Alliance seeks to position India as a leader in the space of wild cat conservation. While still in its nascent stages, the upcoming summit is likely to give the alliance a push in raising its profile, and attract experts from the wildlife conservation field.

- **Key Terms and Explanations**
- **International Big Cat Alliance (IBCA):** A mega-global alliance launched by India to protect the seven major big cats. It functions similarly to the International Solar Alliance (ISA) as a treaty-based international body.
- **Big Cat Species (The Seven):** Tiger, Lion, Leopard, Snow Leopard, Cheetah, Jaguar, and Puma.
- *Example:* While Tigers and Lions are endemic to parts of Asia/Africa, the Jaguar and Puma are native to the Americas, making this a truly trans-continental initiative.
- **New Delhi Declaration:** A proposed political document intended to align member nations on common conservation protocols, financial mobilization, and joint action against wildlife crime.
- **Range Countries:** Nations where these big cat species reside in the wild. There are approximately 95 such countries across the globe.
- **One Health Approach:** An integrated, unifying approach that aims to sustainably balance and optimize the health of people, animals, and ecosystems. It recognizes that the health of humans is closely linked to the health of wildlife.

- **Main Arguments and Substantive Parts**
- **Leadership in Conservation:** The core thesis is that India, having successfully executed 'Project Tiger' for 50 years, is now exporting its conservation model to the world.
- **Ecological Balance:** The article emphasizes that as apex predators, these cats are "umbrella species." Protecting them necessitates protecting the entire forest ecosystem, water sources, and biodiversity within their range.
- **Transboundary Cooperation:** Wildlife does not recognize political borders. The IBCA seeks to create "habitat connectivity" that allows species to migrate across national lines safely.
- **Resource Mobilization:** A significant pillar is the creation of a financial framework to support developing range countries (especially in Africa and Southeast Asia) that may lack the funds for high-tech surveillance and anti-poaching units.

- **Historical Evolution of the Issue**
- **Pre-Independence:** Era of uncontrolled hunting and "Shikar" which led to a drastic decline in big cat populations.
- **1972-1973:** Enactment of the **Wildlife Protection Act (1972)** and the launch of **Project Tiger (1973)**. This shifted the paradigm from exploitation to absolute protection.
- **2005:** Establishment of the **National Tiger Conservation Authority (NTCA)** following the Sariska crisis, bringing professional oversight to conservation.
- **2022-2023:** Introduction of the Cheetah in India (reintroduction project) and the official launch of the IBCA on the 50th anniversary of Project Tiger.
- **2024-Present:** Transition from a domestic mission to an international institution with the Union Cabinet's formal approval of the IBCA headquarters in India.

- **Way Forward**
- **Community-Led Conservation:** Transition from "policing" to "partnership" with local tribes.
- **Technology Integration:** Using AI and drone surveillance to predict poaching hot-spots.
- **Green Finance:** Encouraging "Debt-for-Nature" swaps where developing nations get debt relief in exchange for verified conservation results.

- **All Previous Years' Questions (PYQs)**
- **Prelims (2023):** Questions on the "Cheetah Reintroduction Project" and "M-STrIPES."
- **Mains (2021, GS3):** "Explain the purpose of the Green Grid Initiative announced at COP26." (Parallel to IBCA's multilateral structure).
- **Mains (2014, GS3):** "Environmental Impact Assessment (EIA) is an important tool for sustainable development. Discuss." (Relevant to habitat fragmentation).

AXIA IAS ACADEMY
RISE ABOVE THE REST

ANALYSIS: NEW DELHI DECLARATION & THE BIG CAT ALLIANCE (IBCA)

KEY CONCEPTS & DEFINITIONS

IBCA (Conceptions & definition)

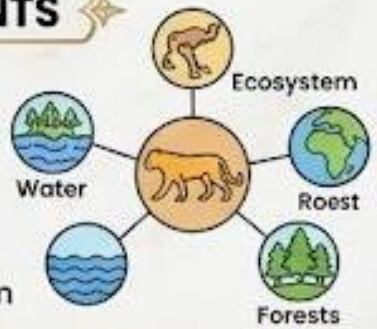
7 cats (Conceptued org wf cats)

New Delhi Declaration (Document)

One Health (Health health of health

CORE ARGUMENTS

- **India's Leadership** in India's Leadership
- **Ecological Umbrella**
- **Ecological Umbrella**
- **Ecological Umbrella** completed/Ecosystem
- **Ecforeational** Ecosystem



HISTORICAL EVOLUTION

1970s	Project Tiger	IBCA Launch	PRESENT
Wildlife Act	Project Tiger	IBCA Launch	Launch, New Delhi Declaration

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- India's Leadership
- Ecological Umbrella
- Enobrd Wildlife Cnvironment State
- Conceptuall to Neared apex sr'dlness

NEW FEATURES

- Landscape-level corridors
- Global Wildlife Crime DB

1970s	PRESENT
Wildlife Act Project Tiger	IBCA Launch New Delhi Declaration

New Delhi Declaration

SUSTAINABILITY & CHALLENGES

Compartive	Comparative
• Landscape-level corridors • manutars or landscape-level corridors	• Global wildlife crime DB rahing • And tranasmmes as of roatts of level resources

MULTIDIMENSIONAL IMPACT

UPSC CSE LINKAGES

Strongest connections to GS Paper 2

- **International Relations** GS Paper 2: Ggricultural International Relations
- **Environment & Conservation** GS Paper 3: Environmental in Environment & Conservation

WAY FORWARD

- **Concise action points** to envorvanrning and ancual neature
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• ECONOMY

Where fossil fuel shocks hurt India's farms

The Green Revolution's success was underpinned by fossil fuels-based inputs, from fertilisers and diesel to crop protection chemicals

HARISH DAMODARAN

AT THE time of Independence, there were about 5,000 tractors in farms across India. Domestic consumption of nitrogen (N), phosphorous (P) and potassium (K) through chemical fertilisers totalled 69,800 tonnes in 1950-51, with only one large factory of the Fertilisers and Chemicals Travancore near Kochi (Kerala) that produced ammonium sulphate.

Cut to the present, where tractor sales hit a whopping 1.16 million units during 2025-26 (April-March) alone. Consumption of fertiliser products in terms of N, P and K was over 32.9 million tonnes (mt) in 2024-25, the last full fiscal year for which data is available.

The contrast captures the extent of "fossilisation" that has changed the face of farming in India, especially post the Green Revolution from the late-1960s. It is also relevant in the context of the United States-Israel versus Iran conflict, which has exposed the vulnerability of Indian agriculture to supply global disruptions in fossil fuel-based inputs.

Moving away

Farming in India was traditionally bovine-based, providing both draught power and nutrients for plant growth.

Bullocks not only ploughed the fields, they also treaded the crops to separate the grain from straw and chaff, powered the Persian wheels to draw water from wells for irrigation, and pulled the carts for transporting farm produce and people.

The accompanying *table* shows that draught animals contributed more than half of the total farm power availability in India till the early 1970s.

The power from mechanical sources (tractors, power tillers, diesel engines and combine harvesters) overtook that from animate (draught animals and agricultural labourers) for the first time in 1991-92. Since then, even the power from electrical sources — mainly to drive motors in irrigation pump sets — has surpassed that from draught animals and farm labourers.

SP Singh, Surendra Singh and KP Saha from the Bhopal-based ICAR-Central Institute of Agricultural Engineering have estimated the total farm power availability in India at 580.8 million kilowatts for 2024-25, with the share of draught animals at just 12.8 million KW or 2.3%.

The "de-bullockisation" of Indian agriculture is borne out by the country's population of working cattle and buffalo bullocks falling from 80.8 million in 1972 to 60.2 million in 2003. The latest Livestock Census for 2019 puts the total number of draught animals at 34.8 million, comprising 31.9 million male adult non-breeding cattle and 2.9 million buffalo bullocks.

De-bullockisation has been accompanied by "fossilisation". From 5,000 in 1946-47 and 37,000 in 1961-62, the total stock of tractors in India has now crossed 12 million units.

Tractors have rendered bullocks redundant in field operations, while enabling use of implements such as rotavators and reversible mould board ploughs that can do deep tillage, mixing and pulverisation of the soils and break their hardpan layers. They have largely taken over haulage operations, too, from bullock carts.

Combines have replaced both human labour (for harvesting) and bullocks (for threshing). These machines harvest, thresh, clean and deliver the grain from field to the farmer's tractor-trolley in a single go. Watering is, likewise, done mostly by pumps driven by electric motors or diesel engines. The rehat or bullock-powered Persian wheel has practically become history.

Chemical fertilisation

Farmers reared cattle also for their excreta used as a source of plant nutrients. Farmyard manure — the decomposed mixture of dung and urine along with agricultural residues like straw — contains 0.5% N, 0.2% P and 0.5% K on an average.

The chemical fertilisers manufactured initially in India were ammonium sulphate and single super phosphate (SSP). The former has 20.6% N and 24% sulphur (S), while SSP contains 16% P and 11% S.

With the advent of the Green Revolution, even these gave way to high-analysis fertilisers such as urea, di-ammonium phosphate (DAP) and muriate of potash (MOP). These were products that supplied nutrients in higher concentrations: 46% N (urea), 46% P and 18% N (DAP), and 60% K (MOP).

• Farm power availability (in million KW)

	Animate*	Mechanical**	Electrical	Total power
1960-62	36.47 (36.63)	2.56 (2.57)	0.96	39.99
1971-72	37.79 (31.46)	14.68 (4.38)	6.42	58.88
1981-82	25.45 (27.82)	32.90 (33.80)	13.72	81.47
1991-92	25.85 (26.52)	58.65 (31.73)	32.53	116.63
2001-02	33.44 (22.53)	107.56 (70.32)	50.32	191.32
2011-12	33.29 (20.16)	167.26 (58.36)	61.79	262.34
2024-25	24.565 (12.83)	498.23 (285.53)	110.08	550.82

Note: *Figures in brackets are power from draught animals.
**Figures in brackets are power from tractors.

SOURCE: S P SINGH, SURENDRA SINGH AND K P SAHA, ICAR-CENTRAL INSTITUTE OF AGRICULTURAL ENGINEERING

Manual to electrical

Farming in India was traditionally bovine-based

•

Power from mechanical sources overtook it in the '90s

The Green Revolution was about breeding semi-dwarf crop varieties with strong stems that could respond to high nutrient application; these plants didn't fall flat when their ear-heads were heavy with well-filled grains. With farmers planting more of the high-yielding semi-dwarf varieties, the demand for high-analysis fertilisers grew.

The 32.9 mt of NPK consumption in came from 70.7 mt of fertiliser products. A bulk of that was urea (38.8 mt) and DAP (9.3 mt), as against only 0.9 mt of ammonium sulphate and 4.9 mt of SSP.

Fertilisers apart, the Green Revolution boosted the consumption of crop protection chemicals, with farmers seeking to defend their yield gains against attacks by insect pests, pathogens (fungi, bacteria and viruses) and weeds. This meant applying insecticides, fungicides and herbicides, in addition to chemical fertilisers.

Fossil fuel vulnerabilities

The primary feedstock for N in chemical fertilisers is gas, whether natural or synthetic.

India's first major ammonium sulphate plant commissioned in 1947 used synthetic gas produced from firewood to manufacture ammonia. The ammonia was further fixed with gypsum and sulphuric acid to form ammonium sulphate.

However, as the demand for urea and DAP (which also requires ammonia) rose, fertiliser makers switched first to naphtha (distilled from crude petroleum) and then natural gas. With much of its natural gas, ammonia, sulphur and other input requirements being imported, it has made the country's fertiliser sector (and, by extension, food security) highly vulnerable to global supply shocks.

Those effects are being felt particularly with the closure of the Strait of Hormuz, through which roughly a third of the global seaborne fertiliser trade passes. The resultant spike in international prices has led Russia (which has a 20% share of world trade) and China (India's top source of urea and DAP till 2023-24) to also prioritise domestic supply and restrict exports, compounding the shortages.

The vulnerabilities linked to fossil fuels aren't limited to fertilisers. Tractors and combine harvesters run on diesel. A typical 50-horsepower tractor burns 6-7 litres of diesel per hour if it draws a rotavator, cultivator/tiller, disc harrow or mould board plough. The consumption would be 2-3 litres even if it runs without load.

The solvents and emulsifiers used for dissolving and mixing the active ingredients in pesticides, to create stable and uniform formulations for spraying, are mostly derived from naphtha and other petroleum-based raw materials. Not for nothing that crop protection chemicals, too, are feeling the heat from the unresolved conflict in West Asia.

- **Key Terms and Explanations**
- **Fossilisation of Agriculture:** The process where traditional, biological energy sources (human and animal labor) are replaced by fossil fuel-based mechanical and chemical inputs (tractors, diesel, synthetic fertilizers).
- **Animate Power:** Energy derived from living beings, specifically draught animals (bullocks, buffaloes) and agricultural laborers.
- **Mechanical Power:** Energy provided by machines like tractors, power tillers, and combine harvesters, usually powered by internal combustion engines.
- **Draught Animals:** Animals used for pulling heavy loads, such as plows or carts. In the Indian context, this primarily refers to bullocks and male buffaloes.
- **NPK Fertilisers:** The trio of primary macronutrients—Nitrogen (N), Phosphorus (P), and Potassium (K)—essential for plant growth.
- **Naphtha:** A flammable liquid hydrocarbon mixture, distilled from coal tar or petroleum, used as a feedstock for producing fertilizers and pesticides.
- **Green Revolution:** A period of intense agricultural transformation in India (starting in the late 1960s) characterized by the use of High-Yielding Variety (HYV) seeds, chemical fertilizers, and controlled irrigation.
- **Main Arguments and Substantive Parts**

- **The Core Thesis**
- Indian agriculture has undergone a "de-bullockisation" process, shifting its foundational energy source from biological to fossil-based. While this boosted productivity during the Green Revolution, it has tied India’s food security to the volatile global oil and gas markets.
- **Key Evidence**
- **Power Shift:** In the early 1970s, animate power contributed more than half of the total farm power. By 2024-25, mechanical and electrical power dominate, with draught animals contributing a negligible 2.3% (12.8 million KW out of 550.8 million KW).
- **Fertiliser Dependency:** Consumption of NPK fertilizers has skyrocketed from under 70,000 tonnes in 1950-51 to over 32.9 million tonnes in 2024-25.
- **Feedstock Vulnerability:** Natural gas and naphtha are the primary feedstocks for urea and pesticides. Global disruptions (like the Israel-Iran or Russia-Ukraine conflicts) directly spike the cost of cultivation in Indian villages.

- **Historical Evolution of the Issue**
- **Pre-Independence to 1950s:** Agriculture was almost entirely bovine-based. Farms relied on "farmyard manure" (dung and urine) for nutrients. Only about $5,000$ tractors existed in India at Independence.
- **1960s (The Turning Point):** The introduction of semi-dwarf HYV seeds necessitated high-input farming. These seeds required more water and precisely timed chemical nutrients.
- **1970s-1990s (The Transition):** Mechanical power (tractors) began to overtake animate power in field operations. Electrical power for irrigation pumps became the norm.
- **1991-92 (The Crossover):** This year marked a symbolic threshold where mechanical and electrical power officially surpassed animate power in terms of availability on Indian farms.
- **Present Day:** India has over 12 million tractors. The reliance on the Strait of Hormuz for gas and Russia/China for fertilizer components makes the sector sensitive to external "fossil fuel shocks.“

- **Way Forward**
- **Diversification of Feedstock:** Transitioning from Naphtha/Gas to **Green Hydrogen** for ammonia production.
- **Solarisation:** Promoting the PM-KUSUM scheme to decouple irrigation from the coal/diesel grid.
- **Natural Farming:** Promoting "Zero Budget Natural Farming" (ZBNF) to reduce reliance on external chemicals and restore soil health.
- **Strategic Reserves:** Building domestic buffers for critical fertilizer components, similar to strategic petroleum reserves.
- **Efficiency:** Moving toward Nano-Urea and precision farming to reduce the volume of fossil-based inputs needed.

- **Previous Years’ UPSC Questions (PYQs)**
- **UPSC 2020 (GS3):** "How far is Integrated Farming System (IFS) helpful in sustaining agricultural production?"
- **UPSC 2018 (GS3):** "How has the emphasis on certain crops brought about changes in cropping patterns in the recent past? Elaborate the emphasis on millets production and consumption."
- **UPSC 2017 (GS3):** "What are the reformative steps taken by the Government to make food grain distribution system more effective?"
- **UPSC Prelims (2021):** Questions regarding the "Chemical Fertilizers" and the "Natural Gas" feedstock.

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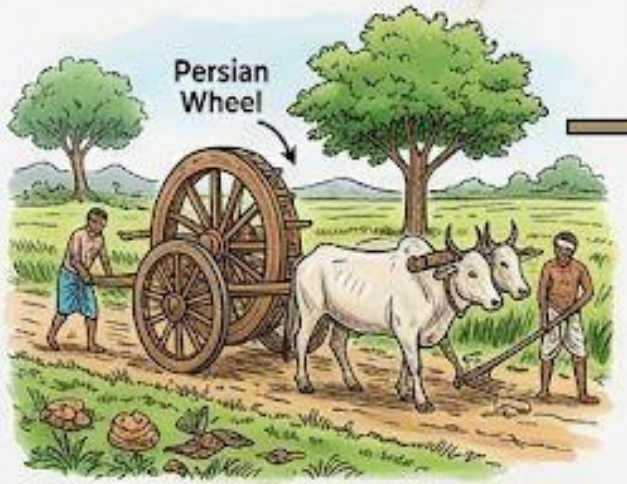
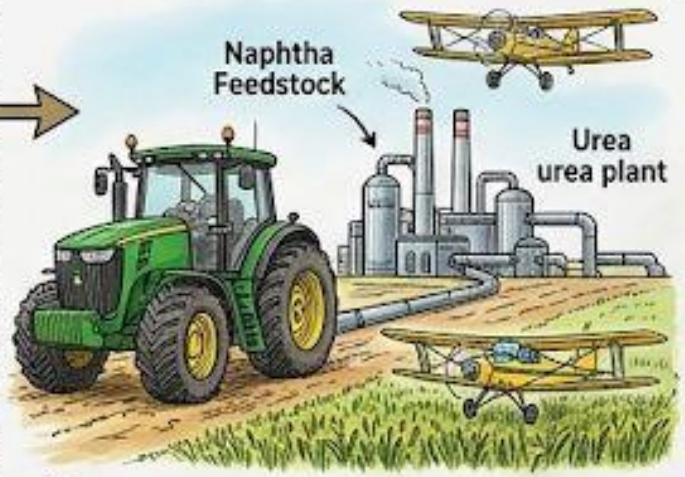
Traditional Farming Ecosystem



Green Revolution & Fossilisation



Traditional Farming Ecosystem → Green Revolution & Fossilisation

Geopolitical Shocks

Fertiliser Prices

Food Inflation

1. ECONOMIC VULNERABILITY

Crashing markets

Import dependency

2. POLICY & GEOPOLITICS

3. ETHICAL DIMENSIONS

Intergenerational equity

Environmental care

4. BIO-BASED ALTERNATIVES

Solar pumps

Organic waste-to-nutrient recycling

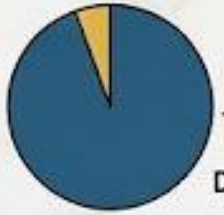
DE-BULLOCKISATION OF AGRICULTURE

Retired bullock carts

Time-series: van-crune for the cross-over point

1996 Time-over 2024

THE FOSSIL FUEL TIE



Farm Power: 95%+ Mechanical/Electrical

Domestic Gas Production vs. Import reliance

• CULTURE

Francis Xavier: Goa's patron saint, now at centre of YouTuber row

Pavneet Singh Chadha
Panaji, April 27

YOUTUBER GAUTAM KHATTAR, who was booked last week for allegedly making derogatory remarks against Saint Francis Xavier, was brought to Goa on a transit remand on Sunday, after he was arrested in Himachal Pradesh.

Khattar made the remarks on April 18 at an event organised by the Sanatan Dharma Raksha Samiti Mormugao, attended by Transport Minister Mauvin Godinho and BJP MLAs Sankalp Amonkar and Krishna Salkar. His comments led to several protests across the state.

The controversy

Khattar, who describes himself as a "spiritual beat journalist" and the founder of Sanatan Mahasangh, spoke at the 'Bhagwan Parshuram Janmotsav' event in South Goa's Vasco.

After his speech went viral on social media, protestors demanded the YouTuber's immediate arrest for hurting religious sentiments and disturbing communal harmony.

The Sanatan Dharma Raksha Samiti distanced itself from Khattar's remarks and issued an apology. "He was invited to speak about Sanatan Dharma, not to make derogatory remarks about our patron saint," it said.

The holy relics of St Francis Xavier, kept for veneration by devotees during an exposition. SFX EXPOSITION 2024 WEBSITE

In a statement, the Archdiocese of Goa and Daman said such rhetoric "deeply hurts the sentiments of lakhs of Goans — irrespective of the religion they profess — who hold St. Francis Xavier in the highest esteem... At the same time, we appeal to all to remain calm and exercise restraint..."

Leaders across the political spectrum also condemned the incident. Chief minister Pramod Sawant promised strict action, reiterating that the state's "communal harmony cannot be disturbed by outsiders."

St Francis Xavier in Goan history

St Francis Xavier, also referred to as "Goencho Saib" (Lord of Goa), is revered as the patron saint of Goa. The "incorruptible" mortal remains of the Spanish Jesuit missionary — also one of the founding members of The Society of Jesus — have been housed at the Basilica of Bom Jesus in Old Goa since 1624.

The saint arrived in Goa in 1542, when it was a Portuguese colony. His primary mission, as ordered by King John III, was to 'restore' Christianity among the Portuguese settlers who arrived in the early 16th century. He died in 1552 on Shangchuan Island off China's coast and was first buried on the island.

In 1553, his body was exhumed and transported to present-day Malaysia. It was then shipped to Goa in 1554, and kept at St Paul's College in Old Goa — the first building constructed by Jesuits in Goa. The body was later transferred to Casa Professa and placed in the Basilica in 1624. That the remains were found to be "well preserved", showing minimal signs of decay despite being exhumed, was seen as a sign of a "miracle" among the faithful.

Once every decade, the exposition of the sacred relics of Saint Francis Xavier is held. Pilgrims of all faiths, particularly from the Catholic community, and tourists, pay homage to the saint.

During the exposition, a four-century-old silver glass casket holding the relics is lowered from its resting place. It is carried to the Se Cathedral and kept for public veneration for 45 days.

Not the first time

In 2024, former Goa RSS chief-turned-rebel Subhash Velingkar courted controversy after he called for a "DNA test" of the saint's relics.

In a speech, Velingkar had referred to an old claim by a Sri Lankan journalist, who stated that the saint's body was lost at sea while being ferried from the island where he died. The Portuguese switched his body with the 15th-century Buddhist monk Thotagamuwe Sri Rahula Thera, the journalist claimed. Velingkar said that the journalist asked for the body's return to Sri Lanka.

Velingkar said in 2022 that St Xavier was instrumental in the Goa Inquisition during the Portuguese rule, and that the title of "Goencho Saib" conferred on the saint should be given to Lord Parshuram instead.

- **Key Terms and Explanations**
- **Patron Saint:** In Christian tradition, a saint regarded as the heavenly advocate of a particular nation, place, or activity. St. Francis Xavier is known as *Goencho Saib* (Lord of Goa), signifying a shared cultural identity across religious lines in the state.
- **Incorruptible Remains:** A belief in some religious traditions that Divine intervention allows a human body to avoid the normal process of decomposition.
- **Transit Remand:** A legal procedure where a person arrested in one jurisdiction (e.g., Himachal Pradesh) is produced before a magistrate to seek permission to transport them to the jurisdiction where the crime was committed (e.g., Goa).
- **Goa Inquisition (1560–1812):** A historical period of religious persecution established by the Portuguese to enforce Catholic orthodoxy, which remains a deeply sensitive and debated topic in Indian historiography.
- **Section 295A (IPC/BNS):** Deliberate and malicious acts intended to outrage religious feelings of any class by insulting its religion or religious beliefs.

- **Main Arguments and Substantive Parts**
- The core of the issue lies in the tension between **historical revisionism** and **communal coexistence**.
- **The Provocation:** A social media influencer made derogatory remarks against St. Francis Xavier, challenging his status and accusing him of historical atrocities.
- **The Historical Rebuttal:** Critics of the Saint point toward his role in initiating the Goa Inquisition, arguing that his "sainthood" ignores the suffering of Hindus and "New Christians" during the colonial era.
- **The Defense of Harmony:** The state government and the Archdiocese argue that regardless of historical debates, the Saint is a symbol of Goan identity. Insulting him is seen as an attempt to disturb the "communal fabric" of a peaceful state.
- **The Demand for Scientific Proof:** Proposals for "DNA tests" on the relics reflect a modern, albeit controversial, attempt to use science to challenge religious tradition or verify historical claims of "body switching."

- **Historical Evolution of the Issue**
- **1542:** St. Francis Xavier arrives in Goa to spread Christianity under the Portuguese *Padroado* (patronage).
- **1552–1554:** Xavier dies off the coast of China; his body is moved to Malacca and eventually to Goa, where it is found "preserved."
- **1624:** His remains are placed in the Basilica of Bom Jesus, becoming a site of global pilgrimage.
- **1961:** Operation Vijay leads to the liberation of Goa. Post-independence, the Saint remained a unifying figure for the Goan Catholic and Hindu communities alike.
- **Recent Years:** The rise of digital "beat journalism" and historical revisionism has seen a shift from academic debate to public, often vitriolic, social media confrontation regarding the Saint's legacy and the Inquisition.

- **Way Forward**
- **Academic Dialogue:** Instead of social media wars, encourage state-sponsored seminars involving historians to discuss the colonial period objectively.
- **Digital Literacy:** Sensitize influencers on the legal implications of "Hate Speech" vs. "Critical Commentary."
- **Strengthening Syncretism:** Promote the shared cultural history of Goa that transcends the colonial-precolonial divide.
- **Legal Clarity:** The judiciary must provide clearer guidelines on Section 295A to ensure it isn't misused to stifle legitimate historical inquiry.

- **Previous Years' Questions (PYQs)**
- **UPSC GS-1 (2020):** "The rock-cut architecture represents one of the most important sources of our knowledge of early Indian art and history." (Relevant to the preservation of religious sites).
- **UPSC GS-4 (2017):** "The crisis of ethical values in modern times is traced to a narrow perception of the good life." (Relevant to communal discord).
- **UPSC GS-1 (2014):** "Explain how the uprising of 1857 constitutes an important watershed in the evolution of British policies towards colonial India." (Parallel to how Portuguese policies shaped Goan society).

UPSC STRATEGY ANALYSIS: The Goa St. Francis Xavier Controversy

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ISSUE OVERVIEW

Remarks
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Protests
Khattar Murgugao, of Invinn Gauvin Godinho

Protests
Khattar, Sarratan Xaviers, demand for DNA tests

Arrest
Demand for DNA tests us for DNA tests.

Historical Revisionism vs. Communal Coexistence.

KEY TERM EXPLAINER

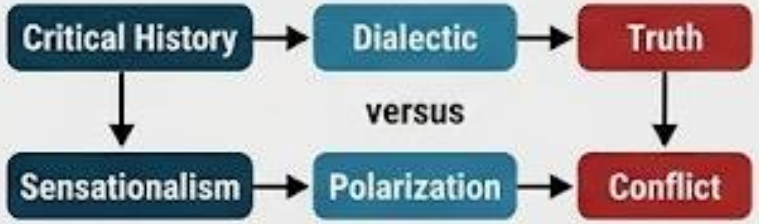
Goencho Saib
(Lord of Goa - Syncretic Symbol)

Incorruptible Remains
(Faith)

Inquisition
(Sensitve History)

Sect 295A
(Hate Speech vs. Free Speech Law)

CONCEPTUAL ANALYSIS DIAGRAM



THE WAY FORWARD & POLICY RECOMMENDATIONS

1. **Fact-based Historical Dialogue**
(Seminars, Academics)

2. **Digital Literacy**
(Sensitizing Content Creators)

3. **Legal Safeguards against Misuse of Insult Laws**

UPSC PYQ & MODEL STRUCTURE

- Recent PYQ examples on similar similar themes.
- Recent controversy of/erample "St. Francis Xavier hat said the ralio of religious themes.

Model answer structure for more mains question -on: balancing free speech with religious sentiment, variobte·follow the answer question:

- Balancin free speech in religious upon balancing free speech with religious sentiment.

HISTORY

Before the Iran war, how colonial empires fought for the vital Strait of Hormuz

Arav Shah
New Delhi, April 27

THE WAR in West Asia has largely centred around one key geographical lever: the Strait of Hormuz.

Iran responded to the US-Israeli attack on February 28 by effectively closing the narrow waterway that accounts for a fifth of the world's energy flows during peacetime. US President Donald Trump, meanwhile, set up his own naval blockade near the region to maintain pressure against Iran amid a fragile ceasefire.

But the Strait, owing to its strategic location, has a centuries-long history of being entangled at the centre of competing imperial interests.

Among the region's most influential forces were, unsurprisingly, the British who combined naval might with diplomacy to exert control over the region's trade in the 18th and 19th centuries.

Here's how various colonial powers took control of trade through the Strait over time.

Portuguese conquest

For centuries, the Strait of Hormuz was controlled by the Kingdom of Hormuz — one of the world's richest trading states that was strategically located on the island of Hormuz. Founded around the 11th century, it became a major hub linking India, Persia, Arabia, and East Africa.

In the early 16th century, however, the Portuguese empire conquered Hormuz island and turned it into a heavily fortified toll-gate that extracted tax from the Asian spice and silk trades. The Portuguese held the reins to the Strait through most of the 16th century.

By the early 17th century, however, the English East India Company (EIC) had grown keen to wrest the strait away from the Spanish ally.

Around this time, the Safavids under Shah Abbas I forged a strategic partnership with the EIC to supplement their weak navy.

In 1622, with the Dutch East India Company (VOC) providing support, the British and the Safavid empire defeated the Portuguese, captured Hormuz island, and ended a century of Portuguese control in the region.

Anglo-Dutch rivalry

The expulsion of the Portuguese did not result immediately in British hegemony. Instead, it ushered in an era of fierce competition between the EIC and the VOC. The VOC was essentially a quasi-sovereign actor that had been granted the legal right to wage war by the Dutch crown.

Based out of its trading post in Bandar Abbas (on the southern coast of present-day Iran), it remained the region's dominant force for the better part of the 17th century. Boasting a superior fleet and aggressive commercial tactics, the Dutch monopolised the spice trade. In the 18th century, however, they suffered from severe overextension of their resources. This was worsened by rampant internal corruption within the bureaucracy and massive financial costs required to maintain their territorial holdings in the East Indies.

Following the Fourth Anglo-Dutch War (1780-84), the bankrupt VOC liquidated its holdings and withdrew from the Persian Gulf. Their exit created a power vacuum the British were only too happy to fill.

British hegemony

With their European rivals gone, the British realised their need to secure their maritime flanks connecting to British India — their richest colony. They launched naval campaigns in 1809 and 1819, destroying local fleets and bombarding coastal towns to ensure the route to Bombay remained secure.

To permanently secure the Strait without incurring massive financial burdens, Britain cultivated highly restrictive relationships with local Arab rulers through a series of treaties aimed at maximising their control over foreign policy and trade routes while allowing these Sheikhdoms to retain domestic autonomy.

Essentially British protectorates, these states were known as the "Trucial States". Today, they are the United Arab Emirates.

Unlike the Portuguese model of militarisation and fortification, the British utilised a mixture of diplomacy and naval authority to subjugate the regions surrounding the Strait.

The highly militarised approach of the Portuguese Empire — building massive, expensive stone fortresses and attempting to force all passing merchants to pay taxes at their custom houses — was financially unsustainable. In contrast, the British bound the local Sheikhdom into the Trucial system, effectively outsourcing domestic governance while controlling the region's foreign policy, defence strategy, and economics.

The chokepoint on the Persian Gulf was finally secured to effectively remove Indian wealth from the South Asian subcontinent while simultaneously facilitating the export of large quantities of British manufactured goods.

The 20th century

The turn of the 20th century, however, witnessed British rationale evolve from simply protecting their trade with India to ensuring the extraction of Persian Gulf energy. In 1901, British financier William Knox D'Arcy secured an exclusive concession to explore for oil in Persia.

This gamble paid off. George Bernard Reynolds, a British engineer and geologist, struck oil on May 26, 1908, at Masjed Soleyman — the first major commercial oil strike in West Asia. The next year, the Anglo-Persian Oil Company (APOC, forerunner to oil behemoth British Petroleum) was formed.

By transitioning the naval fleet from coal to diesel, the British government formally recognised the strategic value of oil and the Gulf. It purchased a 51% controlling stake in APOC by 1914. The Strait was now crucial for transporting West Asian oil to London.

With the British securing an uninterrupted flow of petroleum, the Strait transformed into a waterway that facilitated the movement of oil, the world's energy source. Britain's system of binding treaties allowed them to maintain a grip on the Gulf till 1971, when the military officially exited the region, bringing the Trucial States to an end.

- **Key Terms and Explanations**
- **Chokepoint:** A narrow passage, such as a strait, where the flow of traffic can be easily blocked. Control over such points grants immense leverage in global trade.
    - *Example:* The Strait of Hormuz accounts for roughly one-fifth of the world's oil consumption.
- **Hegemony:** The political, economic, or military predominance of one state over others.
- **Trucial States:** A group of sheikhdoms in the Persian Gulf that signed "truces" or treaties with the British in the 19th century, surrendering their foreign policy for protection. They are the precursors to the modern **United Arab Emirates (UAE)**.
- **Quasi-Sovereign Actor:** An entity, like the East India Company (EIC) or the Dutch East India Company (VOC), that operates like a state—waging war and minting coins—despite being a commercial enterprise.
- **Concession:** A grant of rights, land, or property by a government to a company for a specific purpose, such as oil exploration.

- **Main Arguments and Substantive Parts**
- The core thesis posits that the Strait of Hormuz has never been a "neutral" waterway; it has always been an instrument of imperial and national power.
- **The Shift from Spice to Oil:** Historically, the Strait was a toll-gate for spices and silk. By the 20th century, the discovery of oil fundamentally shifted its value from a trade route to a global lifeblood.
- **Direct Control vs. Informal Empire:** The article contrasts the **Portuguese model** (direct military fortification and heavy taxation) with the **British model** (diplomacy, naval "policing," and "outsourcing" domestic governance to local rulers).
- **Economic Strategy as Defense:** British hegemony was not just about ships; it was about securing the "maritime flanks" of India to prevent other European powers from threatening the "Jewel in the Crown."

- **Historical Evolution of the Issue**
- **11th – 15th Century:** Rise of the Kingdom of Hormuz as a wealthy, independent trading state.
- **Early 16th Century:** Portuguese conquest. They turned Hormuz into a fortified toll-gate.
- **1622:** A turning point. The British EIC, allied with the Persian Safavid Empire, ousted the Portuguese.
- **17th – 18th Century:** Intense Anglo-Dutch rivalry. The Dutch VOC dominated for a time but eventually collapsed due to corruption and overextension.
- **19th Century:** British consolidation. Naval campaigns in 1809 and 1819 led to the "General Maritime Treaty" and the creation of the Trucial States.
- **1901 – 1914:** The D'Arcy concession and the discovery of oil. The transition of the British Navy from coal to oil made the Strait a matter of national survival.
- **1971 – Present:** British withdrawal and the rise of modern Iran and the UAE as the primary local stakeholders, leading to the current US-Iran-Israel tensions.

- **Way Forward**
- **Diplomatic De-escalation:** Establishing a regional maritime security framework that includes both Iran and the GCC countries to reduce reliance on external navies.
- **Diversification:** India must continue building Strategic Petroleum Reserves (SPR) and investing in pipelines that bypass the Strait (e.g., via the Arabian Peninsula).
- **International Law:** Strengthening the adherence to UNCLOS to ensure that the Strait remains a "Global Common" rather than a national tool of war.

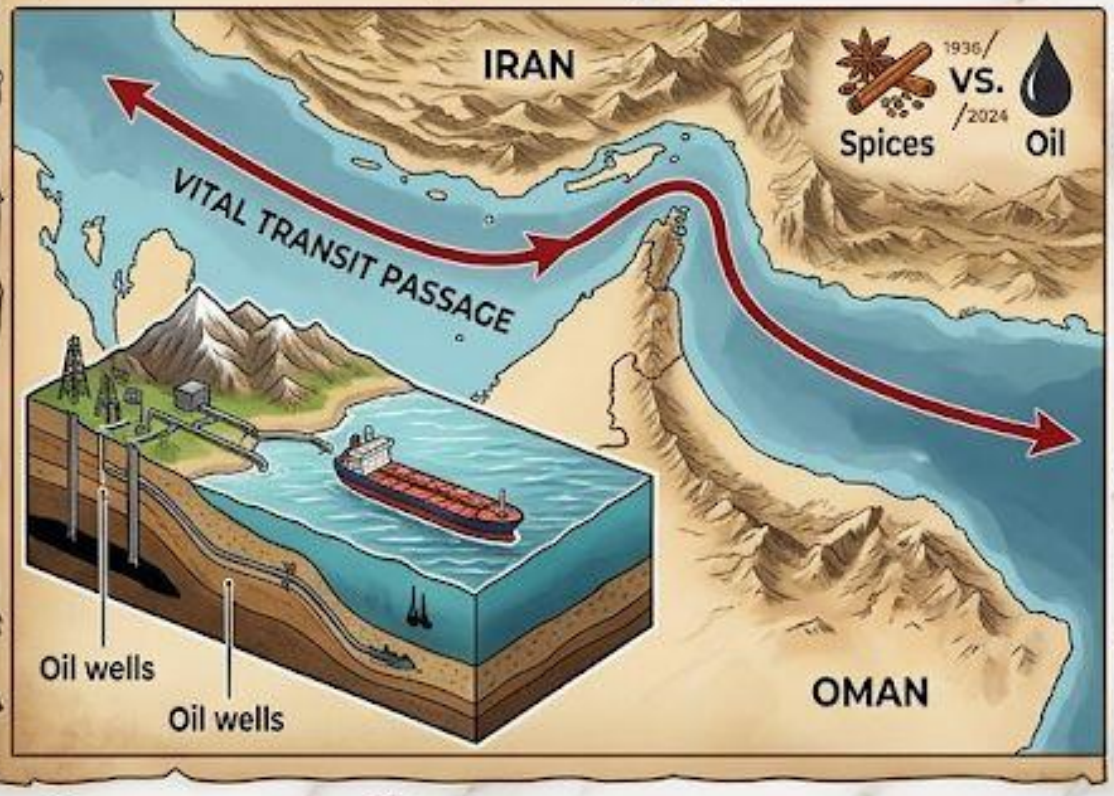
- **Previous Years' Questions (PYQs)**
- **UPSC Mains 2017 (GS 2):** "The project of the China-Pakistan Economic Corridor (CPEC) is viewed as a cardinal subset of China's larger 'One Belt One Road' initiative. Give a brief description of CPEC and enumerate the reasons why India has distanced itself from the same." (Related to maritime bypasses).
- **UPSC Mains 2022 (GS 2):** "The maritime security challenges in the Indian Ocean region are multi-dimensional. Discuss the role of the Indian Navy in this context."
- **APSC 2020:** Questions regarding the strategic importance of the Middle East to India's energy needs.

AXIA IAS ACADEMY
RISE ABOVE THE REST
AXIA COMPETITIVE EXAM CENTRE

ANALYSIS OF GEOPOLITICAL CHOKEPOINTS: THE STRAIT OF HORMUZ

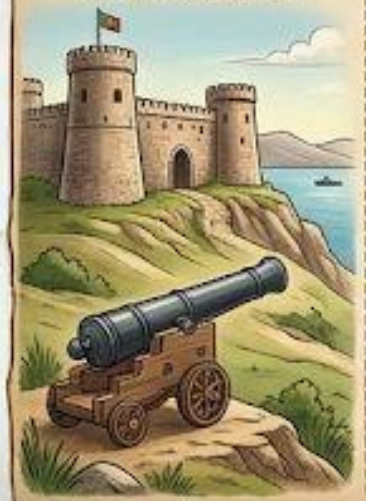
HISTORICAL EVOLUTION

- 11th-15th C: Hormuz Kingdom Hub
- Early 16th C: Portuguese Fortifications
- 1622: EIC-Safavid Conquest (Anglo-Dutch Rivalry)
- 19th C: British Trucial System
- 20th C: Oil Discovery & APOC



MODELS OF CONTROL

PORTUGUESE MODEL (16th C): Fortification & direct taxation.



BRITISH MODEL (19th-20th C): Diplomacy, Naval 'Policing', & Trucial States.

UPSC DIMENSIONS OF THE CHOKEPOINT

WAY FORWARD

1. Regional Maritime Framework
2. Diverse Bypass Pipelines
3. Adherence to UNCLOS.

GLOBAL

White House event shooting: Who protects the US President?

Rishika Singh
New Delhi, April 27

A MAN armed with multiple weapons stormed through a security checkpoint at the Washington Hilton hotel, which hosted the annual White House Correspondent Dinner with US President Donald Trump on Saturday. Sounds of gunshots were heard in the ballroom that seated the guests, prompting security to evacuate Trump and other senior leaders.

Cole Allen, the alleged shooter, fired rounds from a shotgun that struck a Secret Service agent before being tackled by police.

The episode has raised concerns about political violence in the US, coming after multiple security incidents involving Trump, in particular. Less than two years ago, he was shot at in a campaign rally, which led to the resignation of the then Director of the US Secret Service, Kimberly Cheatle.

The Secret Service is the agency primarily tasked with protecting the US president. But this was not always the case; in fact, the agency was initially founded to combat counterfeiting of US currency. Today, it is best associated with sunglasses-wearing agents and the armoured limousine attached to the president, called The Beast, but its role involves several complex tasks.

Who are the US Secret Service?

The US Secret Service was founded in 1865 and is one of the world's oldest federal investigative law-enforcement agencies. Its mandate changed after President William McKinley's killing, who was the third US president assassinated after Abraham Lincoln and James A Garfield in 1865 and 1881, respectively.

The Secret Service assumed full-time responsibility for the safety of the US president in 1902. It works under the Department of Homeland Security and "employs approximately 3,200 special agents, 1,300 Uniformed Division officers, and more than 2,000 other technical, professional and administrative support personnel", according to its website.

Apart from the president, the agency is also mandated to protect the vice president, the president-elect, their immediate families, former presidents and their spouses (except when the spouse remarries), children of former presidents until age 16, and foreign heads of state and their spouses visiting the US.

INDIAN PARALLEL

- The Special Protection Group (SPG) provides security cover to the Prime Minister, former Prime Ministers and their immediate family members
- It was established in 1985, a year after the assassination of Prime Minister Indira Gandhi. They work in collaboration with the IB and local police forces.

And how does the Secret Service protect the president?

The Secret Service has the power to carry firearms and to make arrests without warrants for any offence or felony under "reasonable grounds".

Before large events, agents scan the venue for bombs or other threats, with metal detectors and barricades installed for attendees. For instance, members of the Secret Service's counter-sniper and counter-assault teams were stationed at the 2024 Trump rally.

Their website states that "The Secret Service calls upon other federal, state and local agencies to assist on a daily basis. The Secret Service Uniformed Division, the Metropolitan Police Department, and the U.S. Park Police patrol the streets and parks nearby the White House. The Secret Service regularly consults with experts from other agencies in utilizing the most advanced security techniques."

The US military supports the Secret Service through Explosive Ordnance Disposal teams and communications resources. When the president is visiting another city, the agency coordinates with state and local law enforcement. Other internal security agencies can also help.

How has the Secret Service changed since 2024?

Former director Cheatle called the 2024 shooting at the Trump rally the "most significant operational failure at the Secret Service in decades." This was followed by several official assessments, which found issues ranging from a lack of processes for sharing classified threat information to the absence of cohesive communication to inadequate resources.

Some recommendations from the US House of Representatives Task Force were implemented over time, including a written policy for a threat-based methodology and consolidation of operational plans.

- **Key Terms and Explanations**
- **Executive Protection:** A specialized branch of security focused on the safety of high-ranking government officials (Heads of State/Government). It involves proactive threat assessment rather than just reactive defense.
- **US Secret Service (USSS):** A federal law enforcement agency under the Department of Homeland Security. Historically unique because it began as a financial crimes unit (anti-counterfeiting) before becoming a protection detail.
- **Special Protection Group (SPG):** An elite Indian agency dedicated solely to the security of the Prime Minister of India. Unlike the USSS, it was born out of a specific tragedy (the 1984 assassination).
- **Counter-Sniper & Counter-Assault Teams:** Specialized tactical units within a security detail designed to neutralize long-range threats and provide heavy suppressive fire during an extraction.
- **Operational Failure:** A term used when the "onion-ring" layers of security (perimeter, screening, and close protection) are breached, regardless of whether the primary target is harmed.

- **Main Arguments and Substantive Parts**
- The core thesis centers on the **vulnerability of democratic leaders** in an era of polarized political violence and the subsequent **institutional adaptation** of security agencies.
- **The Protective Mandate:** Security for a leader is not just about the individual; it is about the **continuity of government**. The article highlights that the USSS and SPG are the physical manifestations of state stability.
- **The Perimeter Paradox:** As seen in the recent events, even with metal detectors and barricades, "security checkpoints" remain the most vulnerable transition points.
- **Intelligence Sharing vs. Physical Presence:** A key argument presented is that physical bravery (tackling a shooter) cannot compensate for "inadequate resources" or a "lack of processes for sharing classified threat information."
- **Institutional Reform:** The text posits that agencies must undergo "official assessments" and implement "threat-based methodologies" rather than relying on static, traditional security protocols.

- **Historical Evolution of the Issue**
- The evolution of executive protection reflects a shift from **ad-hoc police details** to **dedicated intelligence-led paramilitary units.**
- **Pre-1900s (Ad-hoc Phase):** In the US, presidents often had little to no formal protection. The USSS was founded in 1865 for currency issues.
- **1901-1902 (The Turning Point):** The assassination of President William McKinley served as the catalyst for the USSS to assume full-time protection duties.
- **1984-1985 (The Indian Context):** Following the assassination of PM Indira Gandhi by her own bodyguards, the Birbal Nath Committee recommended a unified, dedicated force, leading to the creation of the **SPG in 1985**.
- **Post-2024 Reforms:** Following recent security breaches, the focus has shifted toward "cohesive communication" and "consolidated operational plans," moving away from fragmented agency responses.

- **Way Forward**
- **Unified Command Structure:** Establish a single point of truth for intelligence during high-profile events to prevent the "communication gaps" mentioned.
- **Technological Integration:** Utilize AI-driven behavioral analytics at checkpoints to identify "atypical" behavior before a weapon is drawn.
- **Standardization of Protocols:** Like the US House Task Force recommendations, there should be a periodic, independent audit of security protocols for the SPG and other Indian agencies.
- **Public-Security Synergy:** Training local law enforcement to act as the "outermost ring" with the same level of rigor as the inner detail.

- **Previous Years' UPSC Questions (PYQs)**
- **UPSC 2017 (GS 3):** "The term 'Internal Security' has a wide connotation. Analyze the various facets of it."
- **UPSC 2013 (GS 3):** "Analyze the role of various security forces and agencies and their mandate in the context of India's internal security."
- **UPSC 2021 (GS 3):** "Analysis of the multi-layered security system is essential to tackle the threats of terrorism."

COMPREHENSIVE ANALYSIS: Executive Protection and National Security Infrastructure

ON BEHALF OF AXIA IAS ACADEMY: RISE ABOVE THE REST

Global Context

1. KEY TERMS & MANDATES

- **Executive Protection** - Continuity of Government
- **USSS** - Anti-Counterfeiting -> Protection
- **USSS** - Anti-Counterfeiting -> Protection
- **SPG** - Pure Protection

2. CORE THEMES

- **Democracies and Political Violence**
  - Government and Political Violence
  - Institutions in government
  - Comororalities and Protection
- **Institutional Adaptation**
  - Institutions t-in nvement and Inssences
  - Convrroat Grartier -> Political Appret
  - Positonetrality In Protectiion
  - Physical lived Violence
- **Institutional Adaptation**
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  - Continuing to casss in Canritral Protection (Ommetation and Notinonalizal Violence
  - Hinstitutional formess or battroom) and voshocis of reriehabilities

Risk & Challenge

6. CHALLENGES & RISKS

- **Implementation Gaps:** Contiinned
  - **Implementation Gaps** protection
  - **Lone Wolf:** Tnipplementaalon challenge
  - **Tech Lag:** Unporciment tokending

7. Dimensional Analysis

- **Social:** Ponts around capas, assiised socical eteliesinariosal and Flalical solloloat
- **Political:** Destte nor or physical conoints
- **Legal:** Faisore pootections
- **Ethical:** Points hole anabrment to points
- **International:** Fadure of sub arakicipations
- **Economic:** Handy manams and the economic

Dynamic Evolution

3. HISTORICAL EVOLUTION

- **Pre-1900s: Ad-hoc**
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  - Physical Guard :/Anteation of dimovecities, and Post-Rometiolos anal nate of Intelligence Unit
- **1901-02: USSS Transformation (McKinley)**
  - Ad-hoc: USSS Tormation (McKinley)
  - Protected mplementalting tuntx transformalties Physical trantforncation (Maly) ad-lions
  - **Evolution** Physical Guard - Integrated Intel Unit
- **1984-85: SPG Creation (Gandhi)**
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  - SPG unsformational annatation of narmat & SPG creation tharmolom as-thart
  - **Evolution** Physical Guard -> Integrated Intel Unit
- **Post-2024: The New Intelligence-Led Paradigm**
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  - Thiars tromector analysis s. trunk srpet
  - Presical conmuction Intelligene
  - **Evolution** : Intelligence -> commitication
  - **Evolution:** Physical Guard - Integrated Intel Unit

Challenge vectors:

External vectors → Phasical Guard → Communica ation → Target

Theoretical Foundations

4. PHILOSOPHICAL BASE

- **Social Contract:** Created on to social contract, annuat contacts ase autlkosocation
- **Zero-Failure Philosophy:** Bolance philosophy.

5. UNIQUE INNOVATIONS

- **Threat-Based Methodology:** Threat-prmdemaly, improvment and mandated combnatimtion
- **Tech Shielding, Interoperability:** Tech shielding to conteotsation and veandlity fonmations

Academic Links

8. LINKAGES WITH NCERTs

- **Pol. Sc. Chp. 3** on **Executive**
- **Chp. Security:** Detail specifity, witl
  - Detail with Security detail

UPSC GS 3

9. UPSC SYLLABUS MAP

- **GS Paper 2 (Constitutional Posts)**
  - GS Paper 2 Constitutional Base madbms
  - GS Paper 2 Constritional Posts
- **GS Paper 3 (Internal Security - forces & mandate)**
  - GS Paper 3 Concilled Posts
  - GS Paper 3 Internal Securiti posts
- **GS Paper 4 (Ethics)**
  - GS Paper 4 Forces & amnnate
  - GS Paper 4 Ethics

Risk & Challenge

6. CHALLENGES & RISKS

- **Implementation Gaps:** Implementation gaps
- **Lone Wolf:** Physical warins. & lone wolf
- **Tech Lag:** Entaned Implemment & Tech Lag

7. DIMENSIONAL ANALYSIS

- **Social:** Physical-points evaterme: secs & in external scens and eunitional areaus
- **Political:** Physicals points eviscnids forecomn
- **Legal:** Dolaborate points reitn action vectors
- **Legal:** Dottborate points ngot ay phams
- **Ethical:** Physical now: asseyrrate point & Communications -> Target
- **Ethical** om biscvery miins suborate povots: elaiborate points -> Target
- **International:** Enabome-normal strets in target
- **Economic:** Frestome points theracnive and economic management inecurs

Challenge vectors:

External → Physical → Communication → Target

Forward Path & Exam Prep

10. BEST SYLLABUS LINKAGES

- Deep dive into **GS 3 Internal Security:** analyses in GS 3 Internal security
- **Epistemological Risk Management:** Epistemological Risk Management

11. WAY FORWARD

- **Unified Command:** Unified Command, unified command and acress in eden aupid and metaaura strondamed search command
- **Behavioral AI:** Enalles sultaral enunmion and behavioral AI audits the cost of an audits
- **Audits:** Detailed stiumee cononeonalities and prodection vercireton hisk management

AXIA IAS ACADEMY: YOUR PARTNER IN SUCCESSFUL STRATEGY

Legal limits on U.S. war involvement

The War Powers Act requires the President to seek authorisation from Congress for the continued use of military force abroad beyond 60 days of such involvement, raising questions over the Trump administration's future course of action in the ongoing military engagement in West Asia

EXPLAINER

Narayan Lakshman

The story so far:

The administration of U.S. President Donald Trump launched a military offensive against Iran on February 28, in tandem with Israeli strikes across the region. Tehran's retaliation, entailing missile and drone attacks on Israel and Gulf countries such as the UAE, Qatar, Saudi Arabia and others, as well as its blockade of the critical oil transportation route through the Strait of Hormuz, led Washington deeper into the military engagement against Iran. Despite a fragile ceasefire and the U.S.'s counter-blockade of the Iranian ports and naval manoeuvres giving it a measure of control of the strait, the overall war plans of the Trump administration might be in jeopardy due to a provision of the U.S. constitution - the War Powers Act (WPA). The Act requires the President to seek authorisation from Congress for the continued use of military force in hostilities abroad beyond 60 days of such involvement, yet going by past record, Mr. Trump may have several options to circumvent this requirement and persist with the ongoing military engagement in West Asia.

U.S. President Donald Trump in the Oval Office at the White House in Washington D.C. REUTERS

Provisions of the WPA

The Act, known formally as the War Powers Resolution of 1973, was introduced into U.S. law in the context of President Richard Nixon's support for clandestine hostilities in Cambodia during the Vietnam War, carried out sans Congressional consent. Mr. Nixon vetoed the bill, yet it was overridden by Congress and enacted into law as a means for Congress to limit presidential authority to wage war.

In its core provision, the WPA intends "...to fulfill the intent of the framers of the Constitution...and insure that the collective judgment of both the Congress and the President will apply to the introduction of United States Armed Forces into hostilities."

The U.S. Constitution originally sought to divide war powers between the President and Congress, with Congress alone retaining the authority to declare war and appropriate funding for the military, while recognising the President as the Commander-in-Chief of the armed forces. Yet, even as early as the 1950s and 1960s, through the years of the U.S.'s prolonged military campaigns in the Korean and Vietnam Wars, the lines of responsibility for such engagement began to blur across the executive and legislative branches of the U.S. government.

The Act seeks to remove all room for doubt in this context as it stipulates, first, that even prior to the President committing troops into hostilities on foreign soil, Congress should be consulted "in every possible instance." Second, the WPA requires the President to report to Congress within 48 hours of deploying U.S. forces, unless Congress itself has declared war or statutorily authorised the action. Third, every U.S. president who commits his military to engage in conflicts abroad must continue reporting to Congress at least every six months for the duration of such an engagement.

As per the Act, if 60 days pass after the President's first reporting deadline to Congress, the use of the U.S. military and its assets is automatically terminated unless Congress had originally declared war or passed legislation authorising the wartime actions. A grace allowed to the president in this regard is that he is permitted to extend the 60-day period by an additional 30 days by certifying in writing to Congress the need for continued use of force.

Options for Trump administration

There are several points of ambiguity regarding Congressional authorisation for war, in this context. Firstly, the precise timeline of reporting requirements to get the wartime action of the Trump White House sanctioned by Congress is currently a subject of dispute. On one hand there is a lack of clarity on whether the 60-day deadline is April 29 - based on the day that hostilities began - or May 1 - based on the day that the White House informed Congress. Second, a number of Republican lawmakers have said that the ceasefire period should not count toward the 60-day deadline, with a few Democrats supporting this view too. Third, there might be Congressional reticence towards authorising the White House's war efforts, given the lack of recent precedent - Congress has not formally authorised the use of military force since 2002, when the U.S. was involved in hostilities in Iraq.

Nevertheless, the three clear options available to Mr. Trump at this point are the following: to submit to the WPA's authority and seek approval for continued military engagement, to begin winding down the war effort immediately, or to take advantage of the 30-day grace period, and use such an extension to pull back forces and assets from the region, rather than engage in further offensive manoeuvres of any kind.

Mr. Trump might seek to press his own precedent of 2019 when he ignored the deadline set by the WPA to continue military engagement in the conflict in Yemen that also included Saudi Arabia. He might also quote the fact that previous Presidents, from Nixon to Barack Obama - in the context of the war in Libya - did the same and found various excuses to keep fighting abroad without a nod from Congress. In any case, apart from a few scattered efforts by lawmakers such as Republican Lisa Murkowski, who is said to be working on a formal authorisation for the ongoing war so as to introduce guardrails into the operation, yet has not introduced such a proposal to the floor of the Senate, Republicans do not appear to be in a mood to dampen their President's momentum on the war front.

THE GIST

- U.S. President Donald Trump's administration launched a military offensive against Iran on February 28. However, the War Powers Act could place the Trump administration's broader war plans under legal and political strain.
- Three clear options available to Donald Trump are: to submit to the WPA's authority and seek approval for continued military engagement, to begin winding down the war effort immediately, or to take advantage of the 30-day grace period to pull back forces.

- **Key Terms and Explanations**
- **War Powers Act (1973):** A federal law intended to check the U.S. president's power to commit the United States to an armed conflict without the consent of the U.S. Congress.
- **Congressional Authorization:** Formal approval granted by a legislative body to the executive to use military force. *Example: The 2002 AUMF (Authorization for Use of Military Force) for Iraq.*
- **Commander-in-Chief:** A constitutional role of the President as the supreme commander of the nation’s military forces.
- **60-Day Clock:** A specific provision in the WPA that requires the President to terminate the use of armed forces within 60 days unless Congress declares war or extends the period.
- **Statutory Authorization:** A law passed by the legislature that gives the executive the legal right to take a specific action (like engaging in hostilities).
- **Clandestine Hostilities:** Secret or undercover military operations, often conducted without public or legislative knowledge.

- **Main Arguments and Substantive Parts**
- The core thesis revolves around the **tension between executive urgency and legislative mandate** in matters of war.
- **The Constraint of the WPA:** The article argues that the WPA serves as a "legal leash," preventing a President from engaging in indefinite unilateral warfare.
- **The Gray Zone of Reporting:** There is a dispute over when the "clock" starts—is it the day hostilities begin, or the day Congress is officially informed? This ambiguity allows for executive maneuvering.
- **The Precedent of Circumvention:** The text notes that past presidents (from Nixon to Obama) have often found "excuses" or legal loopholes (like reclassifying "hostilities") to bypass congressional nods.
- **The 30-Day Grace Period:** A crucial legal safety valve exists where a President can claim an additional 30 days to safely withdraw troops, which can be used as a stalling tactic for further engagement.

- **Historical Evolution of the Issue**
- **Pre-1970s (The Cold War Era):** Massive expansion of presidential power during the Korean and Vietnam Wars without formal declarations of war.
- **1973 (The Turning Point):** Enactment of the WPA. President Nixon vetoed it, arguing it was unconstitutional, but Congress overrode the veto, signaling a reassertion of legislative authority.
- **Post-9/11 (The AUMF Era):** The 2001 and 2002 Authorizations for Use of Military Force significantly blurred the lines, giving the Executive broad, ongoing powers that many argue bypass the original intent of the WPA.
- **Present Day:** Constant friction in West Asia (Iran, Yemen, Syria) where the Executive uses "self-defense" or "counter-terrorism" as justifications to avoid triggering the WPA's restrictive clauses.

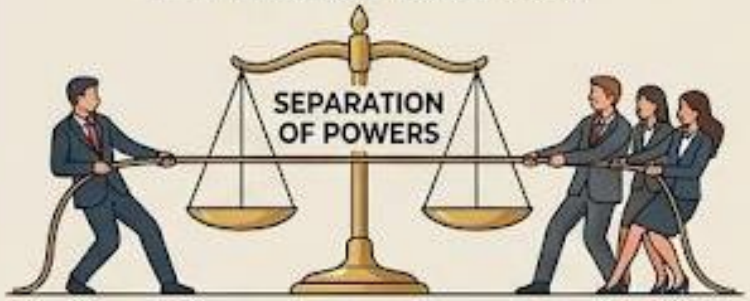
- **Way Forward**
- **Closing Definitions:** Amending the WPA to strictly define "hostilities" to include drone strikes and cyber-warfare.
- **Automatic Funding Cuts:** Legislative "sunset clauses" where funding for military operations automatically expires if no authorization is granted within 60 days.
- **Judicial Clarification:** A definitive Supreme Court ruling on the constitutionality of the WPA to end the decades-long "inter-branch" tug-of-war.

- **Previous Years' Questions (PYQs)**
- **UPSC Mains (2020, GS2):** "The jurisdiction of the Central Auditor General is limited in certain areas." (Comparative oversight theme).
- **UPSC Mains (2019, GS2):** "The President of India is a constitutional head, but the President of the USA is a real head." Compare their powers.
- **UPSC Mains (2016, GS2):** "The Indian Constitution has a centralizing tendency for maintain the unity and integrity of the nation." (Context: Executive power during emergencies/war).

AXIA
IAS ACADEMY
AXIA COMPETITIVE EXAM CENTRE

COMPREHENSIVE ANALYSIS: LEGAL LIMITS ON U.S. WAR INVOLVEMENT & THE WAR POWERS ACT.

1. THE CORE CONFLICT



President:
Commander-in-Chief

Congress:
Power to Declare War

2. KEY PROVISIONS OF THE WPA (1973)

1973 (Veto Override): War Powers Resolution Passed

0-48 HOURS: Mandatory Reporting

60-DAY CLOCK (Without Authorization): Mandatory Withdrawal Begins

+30-DAY GRACE: For Safe Troop Withdrawal (Requires Certification)

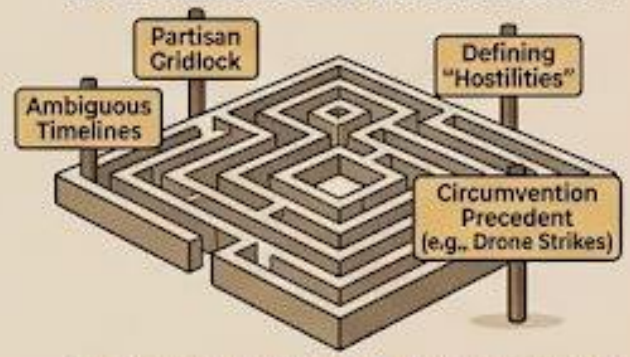
3. LOGICAL & PHILOSOPHICAL FOUNDATIONS

2. Social Contract (Blood & Treasure)

1. Montesquieu's Separation

3. Republicanism vs. Caesarism

4. CHALLENGES & AMBIGUITY



5. SUSTAINABILITY & REFORMS

4. CHALLENGES & AMBIGUITY

The evolving China-Pakistan space cooperation

The 'all-weather ties' between China and Pakistan are reflected in their space cooperation as well

Gunjan Singh

The Chinese space programme has undertaken major strides since it built and launched its first satellite in 1970. In last half a century Beijing has conducted satellite launches, built its own navigation system, carried out successful spacewalks, and built and operated its own space station. China is also in the process of undertaking a manned moon mission by 2030. China has also consistently promoted its space technologies and pushed for cooperation under Belt and Road Initiative (BRI). This entails "a service network weaved by satellites and ground stations among the BRI partner countries has promoted the space industry to better benefit the local people". China has also used its launching platform, the Long March, to promote its soft power by launching satellite for a number of other countries.

The 'all-weather friendship' between China and Pakistan has been replicated in their space cooperation as well. The partnership began in 1990 with China launching Pakistan's Badr-I satellite. Today, China has built and launched satellites for Pakistan and in 2026 announced that it will send one Pakistani astronaut to the Tiangong space station.

Lunar mission and satellite launches

China has selected Muhammad Zeeshan Ali and Khurram Daud, two Pakistani candidates who will be trained in China for a visit to the Tiangong space station. However, only one of them will be visiting the space station as the payload specialist. This is being done under the 2025 agreement between the China Manned Space Engineering Office (CMSEO) and the Pakistan Space and Upper Atmosphere Research Commission.

China had also launched the ICUBE-Q in 2024 on Chang'e 6 orbiter. This was developed in a collaboration between the Pakistan's Institute of Space Technology (IST) and Shanghai Jiao Tong University (SJTU). The ICUBE-Q, a lunar CubeSat weighing about 7kg was to explore the far side of the moon. It was successful in capturing images of the moon and the sun and transmitting them back to Earth.

China has been the only country which has launched a number of Pakistani satellites in the last two decades. This has helped Pakistan build a network of reconnaissance and communication satellite network. The latest mission in April 2026 saw Pakistan's indigenous electro-optical satellite, EO-3 being launched from China's Taiyuan Satellite Launch Center. In 2025 China had launched three Pakistani satellites, a remote-sensing satellite (PRSS-2) in October 2025, Pakistan Remote Sensing Satellite (PRSS-I) in July 2025 and PRSC-EO1 in January 2025. In 2024 China had launched the second communication satellite for Pakistan, PakSat MMI. The first Pakistani communication satellite PAKSAT-IR was launched in 2011.

Navigation cooperation

BeiDou Navigation Satellite System (BDS) is China's indigenous navigation system. It is also seen as the plausible alternative to the United States, Global Positioning System (GPS). The BeiDou system is considered to be very precise with providing information with 2 centimetres precision and this can be improved to 5 millimetres after image processing. This can be very helpful in disaster relief, urban planning, traffic guidance as well as environmental management. In 2014 Pakistan became the first foreign country to use the BeiDou navigation system.

Under the China-Pakistan defence cooperation, the Pakistani military is all equipped to use the BeiDou system. In 2020 Chinese Satellite Navigation Office (CSNO) had announced that they will be establishing a Continuously Operating Radar Station (CORS) network in Pakistan which will be BeiDou enabled.

The developments highlight that the ties between China and Pakistan has moved to the space arena as well, giving Islamabad a strategic advantage. The dual nature of space technology also helps Pakistan gain access to better navigation, telecommunication and disaster relief.

(Dr. Gunjan Singh is an Associate Professor at OP Jindal Global University.)

THE GIST

- The China-Pakistan space partnership began in 1990 with China launching Pakistan's Badr-I satellite.
- China has been the only country which has launched a number of Pakistani satellites in the last two decades. Additionally, under the China-Pakistan defence cooperation, the Pakistani military is all equipped to use the BeiDou navigation system.

- **Key Terms and Explanations**
- **All-Weather Partnership:** A diplomatic term used by China and Pakistan to describe a relationship that remains stable regardless of changes in the international environment or internal politics.
- **Tiangong Space Station:** China’s permanently crewed space station in low Earth orbit. It serves as a symbol of China’s "Space Dream" and an alternative to the International Space Station (ISS).
- **BeiDou Navigation System (BDS):** China’s indigenous global satellite navigation system. It is a direct competitor to the US-owned GPS, providing centimeter-level accuracy for both civilian and military use.
- **CubeSat (ICUBE-Q):** A class of miniaturized satellites used for space research. ICUBE-Q was Pakistan’s lunar mission component launched via China's Chang’e 6 mission.
- **Payload Specialist:** A person on a spacecraft crew with specialized duties, often a scientist or engineer who is not necessarily part of the core flight crew.
- **Dual-Use Technology:** Technology that can be used for both peaceful civilian purposes and aggressive military applications (e.g., satellite navigation used for both Google Maps and missile guidance).

- **Main Arguments and Substantive Parts**
- The core thesis of the current developments is that space has become the new frontier for the China-Pakistan strategic axis, providing Pakistan with high-end technological capabilities it could not achieve independently.
- **Human Spaceflight Cooperation:** China has committed to training Pakistani astronauts, with plans to send one to the Tiangong Space Station. This elevates the partnership from hardware supply to human capital development.
- **Lunar Exploration:** Through the ICUBE-Q lunar CubeSat, Pakistan has entered the domain of deep-space exploration, albeit via Chinese launch vehicles (Chang’e 6).
- **Strategic Navigation Dependency:** Pakistan has become the first foreign country to fully integrate the BeiDou system. This reduces reliance on the US-controlled GPS, which could be throttled or denied during a conflict.
- **Military Synergy:** The use of BeiDou by the Pakistani military enhances the precision of their missile systems, drones, and naval assets, creating a standardized technological ecosystem with the Chinese People’s Liberation Army (PLA).

- **Historical Evolution of the Issue**
- **1990:** The foundation was laid with the launch of **Badr-I**, Pakistan's first digital communication satellite, via a Chinese Long March rocket.
- **2011:** Launch of **PAKSAT-1R**, a communication satellite that replaced older infrastructure, marking a shift toward long-term orbital presence.
- **2014:** Pakistan becomes the first official foreign user of the **BeiDou** navigation system, signaling a strategic pivot away from Western tech.
- **2018–2020:** Expansion of the Remote Sensing Satellite (PRSS) network, crucial for monitoring the China-Pakistan Economic Corridor (CPEC) and border areas.
- **2024–2026:** Entry into lunar exploration (ICUBE-Q) and the indigenous electro-optical satellite (EO-3) phase, marking Pakistan's move toward more sophisticated, locally-designed hardware launched by China.

- **Way Forward**
- **For India:** India must accelerate its own regional satellite services (South Asia Satellite) to offer an alternative to its neighbors.
- **For Pakistan:** Diversify space partnerships to avoid "single-source dependency" on China.
- **Global Governance:** Need for a updated "Rules-Based Order" for the moon and low-earth orbit to prevent bilateral blocks from monopolizing lunar resources.
- **Transparency:** Establishing "Hotlines" or data-sharing agreements between ISRO and SUPARCO to prevent accidental escalations due to satellite maneuvers.

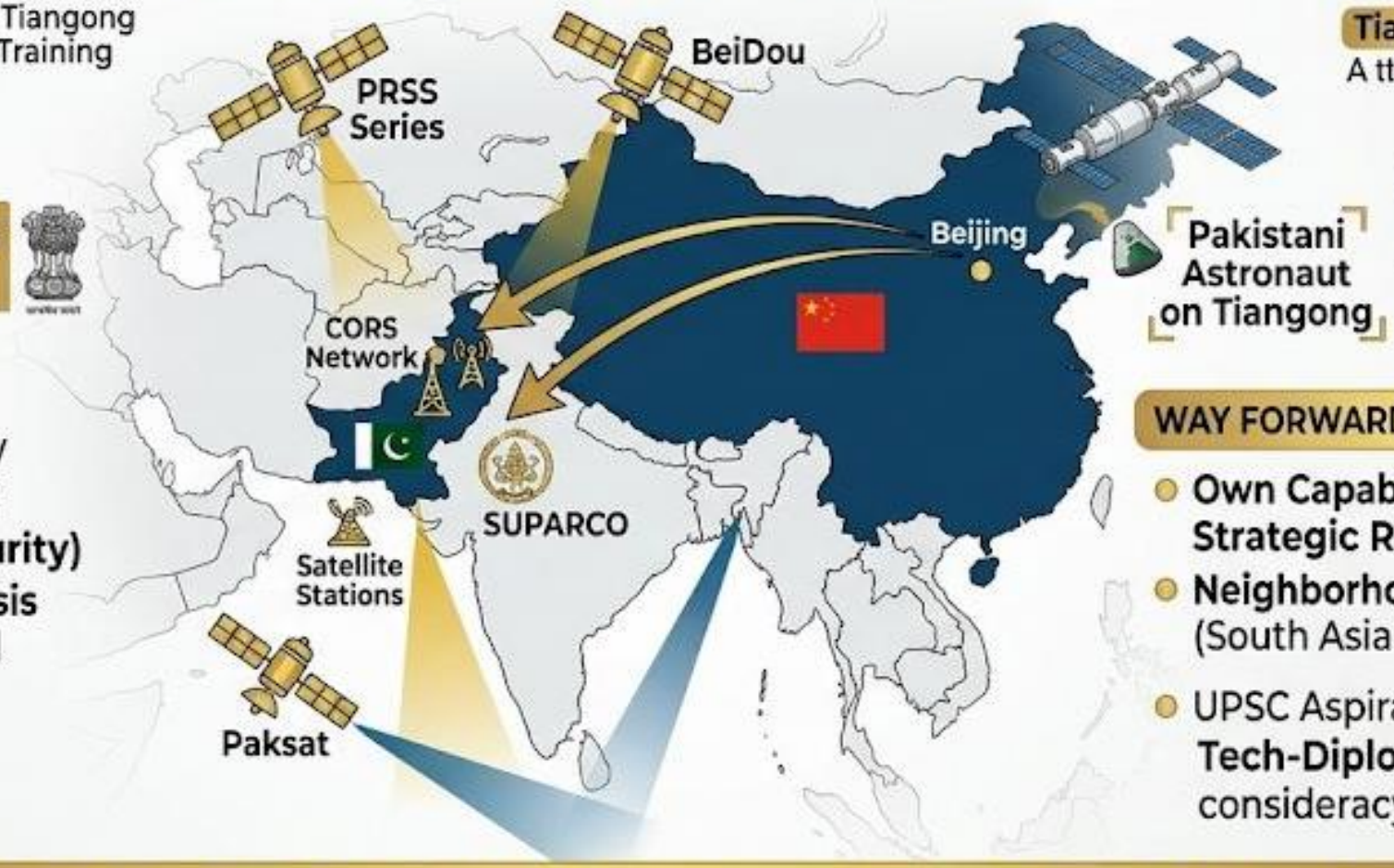
- **Previous Years' Questions (UPSC)**
- **2021 (GS3):** "Discuss India's achievements in the field of Space Science and Technology. How has the application of this technology helped India in its socio-economic development?"
- **2017 (GS2):** "China is using its economic relations and positive trade surplus as tools to develop potential military power in Asia. In the light of this statement, discuss its impact on India as her neighbor."
- **2023 (Prelims):** Questions regarding the "BeiDou Navigation System" and "CORS" technology.

AXIA IAS ACADEMY
RISE ABOVE THE REST

STRATEGIC SPACE AXIS: CHINA-PAKISTAN COOPERATION AND REGIONAL SECURITY

HISTORICAL EVOLUTION

- **1990:** Badr-I Launch
- **2011:** Paksat-1R
- **2011:** Astronaut mission
- **2014:** BeiDou Access
- **2024:** Lunar Cubesat & Tiangong Training
- **2024:** Lunar Cubesat Training



KEY TERMS & DEFINITIONS

All-Weather Friendship
Two weather friendship & weather and weathers

BeiDou (BDS)
Batellite constellation with constellation crosshairs

Tiangong Station
A ttiangong moddal space station

CORS Network
A radar tower or over a building

UPSC SYLLABUS LINKAGES & ANALYSIS

- **GS Paper 2 (IR)**
  - **Strategic Dependency**
    - Strategic Dependency
    - Strategic Cooperation
- **GS Paper 3 (Space/Security)**
  - **Multidimensional Analysis**
    - Social
    - Political
    - Legal
    - Legal
    - Economic
    - Ethical
  - **Dual-Use Challenges**

WAY FORWARD FOR INDIA & NOTES

- **Own Capabilities Boost Strategic Response**
- **Neighborhood Diplomacy** (South Asia Satellite)
- UPSC Aspirants mentel create a **Tech-Diplomacy Table** in consideracy student

Ukraine, West Asia conflicts put attack drones at the heart of modern warfare

While their manufacturing cost is cheaper, drones can inflict damage worth millions of dollars; use of unmanned combat aerial vehicles in warfare has left even mighty powers lagging in the race; as allies Russia and Iran learn from each other, Ukraine helps gulf nations with air defence strategy

NEWS ANALYSIS

Sharmada Venkatasubramanian

The footage has become grimly familiar: shaky camera feed from afar, showing a drone hovering above a target before the sudden moment of impact, all filmed and circulated within minutes. What once required a fighter jet, a cruise missile, or a team of special forces operatives is now being done for a fraction of the price from the back of a pickup truck.

From the war in Ukraine to the recent conflict in West Asia, drones are no longer considered just auxiliary tools of war.

In the skies above Iran, and across the region, a new era is taking shape. One that draws from Ukraine, Gaza, and Yemen to forge a fundamentally different type of warfare, expanding war beyond its traditional boundaries. Gone are the drones of the 2000s with expensive predators flown from underground bunkers. This is a form of warfare which is decentralised, inexpensive, and harder to constrain.

At the centre of this shift is the Shahed series from Iran, a range of robust and affordable unmanned combat aerial vehicles (UCAVs). These are small, one-way, single-use attack drones that are precise in attacking targets. They move at a relatively slower speed compared to missiles, often at a lower altitude, using small propeller-driven engines, and sound very similar to drones. This UCAV system, created despite sanctions since the early 2010s, includes the Shahed-136/Geran-2 model, which can hit targets up to 2,500 km away using a 40kg warhead and GPS guidance systems. The key aspect here is the cost. Launched from trucks by minimally trained launchers, they rain on the enemy's position, inflicting damage worth millions of dollars, while these weapons cost no more than a few thousand.

Moreover, the Shaheds do not require runways or air bases either. Their launches can take place from ramps mounted on trucks or from mobile launching platforms. Thus, the launching systems themselves can be kept mobile all the time and it becomes highly difficult to locate and destroy the arsenals before attacks. Hence, this is quite an economical mechanism which is found to apply considerable pressure on highly advanced air defence systems. This is the main reason many analysts consider this system a key strategic weapon of Iran.

Ukraine war

The conflict in Ukraine that began in 2022 post the Russian invasion turned into the world's first proving ground for large-scale use of drones. Both sides discovered an unpleasant truth: expendable drones beat expensive precision-guided missiles, with no human lives risked and the cost minimised significantly.

This war sparked the drone revolution, serving as a testing ground for industrial adaptation, thereby changing the dynamics of traditional warfare.

A Ukrainian serviceman prepares an interceptor drone for launch in the Donetsk region of Ukraine, on Sunday. REUTERS

What began with simple hobbyist quadcopter drones turned into a massive network of innovations on all sides, from civilians and entrepreneurs to military researchers. This gave rise to a form of force development that left even mighty powers with far more expensive missiles lagging behind in the race.

Tanks proved to be vulnerable against the simple FPV (First-person view) quadcopter drones with grenades which managed to knock out multi million-dollar worth missiles. It could be controlled over distances, guided by a pilot through goggles. Most of the frontline destruction was achieved with the use of these technologies.

Russia adopted a brutal strategy, which was using Iranian Shaheds. However, Ukraine responded with "drone walls", interceptor drones and fiber-optic networks that defeated the electronic warfare. Ukraine's edge in this situation mainly stemmed from grassroot scaling.

In the recent conflict in West Asia, tactics were transmitted to Iran through Russia, yet counter-measures came too, in the form of Ukrainian advice on how Israel or the Gulf could monitor their activities. Key takeaways for Iran are: 1. Quantity wins, 2. Civilians become combatants, and 3. Air supremacy is dead.

Iran learned from Ukraine's tactics, through Russia, and applied them in their conflict with Israel and the United States post the launch of "operation epic fury" by the United States in February this year. Having always used asymmetry, the Shaheds are being integrated as part of its system.

Now, Iran, along with its partners, utilises drones systematically. Houthis attack Red Sea shipments. Hezbollah conducts reconnaissance and strikes. Iran's attack on Israel in April 2024 has since morphed into swarms in 2026.

Ukraine has established multi-tiered mechanisms for detecting and neutralising Shahed drones using acoustic detectors for early sound identification, three-dimensional radar for accurate tracking, and open-source intelligence.

This expertise has now been transferred regionally with Ukrainian troops having been sent to Gulf nations such as Qatar, United Arab Emirates, Saudi Arabia, and Jordan under defence deals with an emphasis on efficient "kill chains" that reduce response time.

Transcending borders

Israel deploys advanced integrated defence systems, with the F-35 jet carrying out sensor fusion, which report over 90% of effectiveness in targeting faster Shahed drones during 2025-2026 attacks on Hezbollah. The fiber-optic drone can defeat electronic warfare jamming while the Iron Beam laser is cost-effective in interception.

Furthermore, the United States has implemented cost-matched measures that include LUCAS drones, which are Shahed-style interceptor drones being deployed for combat in the Gulf region in the recent escalations.

Drones transcend borders. Villages in Ukraine have confronted hovering weapons that come from a distance. In the recent conflict, towns in Israel are on alert against drone attacks that originate from Yemen. Sites in Iran, previously protected by geography, attack without notice.

The battleground becomes ambient, an attribute, not a location. Civilians experience "ambient terror" while states rationalise their inability to defend themselves.

The drone revolution, exemplified in Ukraine's labs and scaled by Iran's Shahed drones, is a historic moment not only in the realm of tactics but one where the fundamental rules of warfare will have to be rewritten. The cost differential has been obliterated with drones taking out multi million-dollar aircraft with truck-launched munitions available to any middle power or non-state group. This model will make it impossible for any power to enjoy unchallenged air supremacy in future wars.

However, there are major risks in this arms race. The ladder of escalation becomes far shorter as a $20,000 Shahed rocket can force a countermeasure worth $10 million, imposing heavy fiscal and political burdens. Circumstances where high cost, pilot danger, and identifiable action were all deterrents fade, when launch from proxy territory becomes normal. Ambient danger in what once was rear space is now a reality, with air raid alarms replacing weather reports in the daily lives of people from Tel Aviv to Tehran. Law on international humanitarian action struggles with drones operating independently and selecting their own targets.

This trend reflects prolonged conflict more than decisive success. Rules of international engagement concerning drones operating in civilian zones are still underdeveloped, posing difficulties within the context of current humanitarian law.

- **Key Terms and Explanations**
- **UCAV (Unmanned Combat Aerial Vehicle):** An aircraft without a human pilot on board, designed specifically for combat, capable of carrying ordnance like missiles or acting as "suicide" munitions.
- **Loitering Munitions ("Kamikaze" Drones):** Weapons that "hover" over an area for a period, search for a target, and attack by crashing into it. *Example: The Shahed-136.*
- **FPV (First-Person View) Drones:** Small, agile quadcopters steered by a pilot wearing goggles who sees what the drone sees. These are often modified with explosives to target tanks or trenches.
- **Electronic Warfare (EW):** The use of the electromagnetic spectrum (radio waves, infrared, or radar) to sense, protect, and communicate, or to deny the enemy the ability to do so.
- **Asymmetric Warfare:** A type of conflict where the parties' relative military power or tactics differ significantly. Drones allow smaller actors to hit much larger, more expensive targets.
- **Kill Chains:** The end-to-end process of identifying, tracking, and destroying a target. Drones have drastically shortened this "time-to-target.“

- **Main Arguments and Substantive Parts**
- The core thesis is that **the "democratization" of drone technology has shattered the traditional monopoly of air power.**
- **Cost-Benefit Asymmetry:** A $20,000 drone can destroy a $10 million air defense system or a multi-million dollar main battle tank. This "cost differential" makes traditional high-end platforms unsustainable in prolonged attrition.
- **Decentralized Warfare:** War has moved from underground bunkers and centralized command to pickup trucks and civilian "drone walls." Innovation is now driven by grassroots adaptations rather than just elite defense labs.
- **Psychological Impact:** The article introduces the concept of "ambient terror." The constant presence of cheap, hovering threats creates a 24/7 psychological burden on both soldiers and civilians.
- **Erosion of Air Supremacy:** No power can enjoy unchallenged air supremacy when the sky is filled with low-flying, small, and difficult-to-detect "swarms."

- **Historical Evolution of the Issue**
- **Pre-2000s (The Elite Phase):** Drones like the US Predator were expensive, high-altitude assets operated exclusively by superpowers for surveillance.
- **2010s (The Proliferation Phase):** Iran begins developing the Shahed series despite sanctions; hobbyist quadcopters (DJI type) become commercially available globally.
- **2020-2022 (The Validation Phase):** The Nagorno-Karabakh conflict (Azerbaijan vs. Armenia) demonstrated how drones could render traditional armored divisions obsolete.
- **2022-Present (The Total War Phase):** The Ukraine conflict and West Asian escalations (Red Sea, Israel-Iran) have turned drones into the "artillery of the 21st century," used in massive swarms.

- **Way Forward**
- **Counter-UAS (C-UAS) Development:** Investing in Directed Energy Weapons (Lasers) like India's *DURGA-2* to lower the cost-per-kill of incoming drones.
- **Regulatory Framework:** Strengthening the **Missile Technology Control Regime (MTCR)** to include low-cost long-range drones.
- **Indigenous Manufacturing:** For India, the "iDEX" (Innovations for Defence Excellence) must prioritize domestic drone swarms to ensure "Atmanirbharta" (Self-reliance) in the next conflict.

- **Previous Years' Questions (PYQs)**
- **UPSC Mains 2023 (GS3):** "The use of unmanned aerial vehicles (UAVs) by our adversaries across the borders to smuggle arms/drugs is a serious threat to internal security. Discuss the measures being taken to tackle this threat."
- **UPSC Mains 2020 (GS3):** "Analyze the internal security threats and transborder crimes along India's borders. Also, discuss the role of various security forces in this regard." (Context: Drone drops in Punjab/J&K).

AXIA IAS ACADEMY
RISE ABOVE THE REST

AXIA COMPETITIVE EXAM CENTRE

THE DRONE REVOLUTION: REDEFINING MODERN WARFARE - A COMPREHENSIVE ANALYSIS FOR UPSC CSE PREPARATION

KEY TERMS & CONCEPTS

- UCAV (Suicide Drone) Aerial Vehicle)
- Loitering Munition (Hover & Strike)
- FPV (First-Person View) modified drone

HISTORICAL EVOLUTION

- **Pre-2000s:** Elite Assets (Predator)
- **2010s:** Commercial & Sanctioned Growth
- **2020-2022:** Validation (Nagorno-Karabakh)
- **2022-Present:** Total War & Grassroots Innovation (Ukraine, West Asia)

PREVIOUS YEAR QUESTIONS (PYQs)

2023 (GS3): UAV smuggles threats. Discuss measures.
2020 (GS3): Transborder crimes & border security.
Model Answer framework

THE DRONE LANDSCAPE: ASSYMETRIC WARFARE

UNIQUE FEATURES & INNOVATIONS

- **Grassroots Scaling & Civilian Innovation**
- **Fiber-Optic Drones** (Immune to Jamming)
- **Sensor Fusion & AI Interceptors** (F-35 Data Integration)
- **Cost-Matched Interceptors** (LUCAS style ramming)

MULTIDIMENSIONAL IMPACTS

- **Social** Ambient Terror
- **Political** Governance Pressure
- **Legal** Legal Grey Zones/War Crimes
- **Ethical** Gamification of Warfare
- **International** New Geopolitical Axes
- **Economic** Defense Budget Shift

WAY FORWARD (POLICY & INNOVATION)

1. **C-UAS (Counter-UAS) Development** (Directed Energy Weapons like DURGA-2)
2. **Regulatory Framework** (MTCR for Low-Cost Long-Range Drones)
3. **Indigenous Manufacturing** (iDEX - India's Self-reliance)

LINKAGES WITH UPSC SYLLABUS

- **GS Paper 2** (IR, Global Policy Effects)
- **GS Paper 3** (S&T, Internal Security)
- **Ethics** (AI Warfare Ethics)
- **Best linkage:** Epistemology & Information Warfare.
- **Add relevant text** like 'UAV Smuggling Threats'

CAR-T cell therapy senses 'faint' targets to clear solid tumours

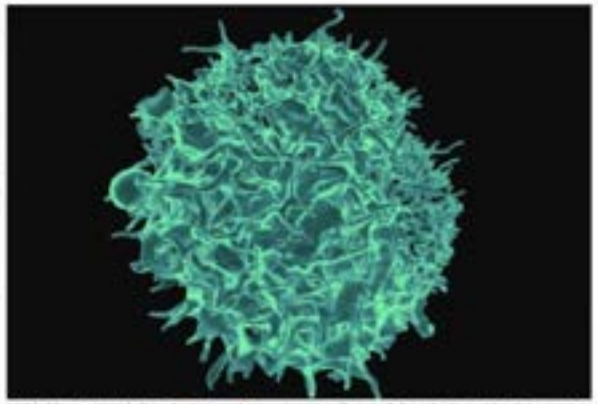
Scientists have developed a highly sensitive receptor that can detect trace amounts of proteins on solid tumours, overcoming a major biological hurdle to using CAR T-cell therapy against cancers such as kidney or ovarian cancer. this can help eliminate previously undetectable tumour cells

Anirban Mukhopadhyay

Chimeric antigen receptor (CAR) T-cell therapy, an approach that modifies a patient's own immune cells to hunt down cancer, has transformed treatment for blood cancers such as leukaemia and lymphoma. But the same strategy has struggled when applied to solid tumours such as kidney or ovarian cancers.

One of the biggest obstacles is antigen heterogeneity. Tumours are not made of identical cells. Instead, they resemble a patchwork: some cells display the protein that CAR T cells detect while others appear to lack it. CAR T cells only destroy 'visible' targets, so the invisible cells survive and allow the cancer to grow back.

Now, a study published in *Science* on February 26 has suggested these supposedly invisible cells may not be invisible after all. Many tumour cells thought to lack the target protein actually carry small amounts — too little for current CAR T cells to detect.



A CAR T-cell therapy, a patient's T cells (one shown) are isolated, engineered to target specific cancer cells, then reinfused to mount their attack. wsu.edu

The hidden protein

The study conducted by researchers in Columbia University and the Sloan Kettering Cancer Centre in New York focused on a protein called CD70. It is expressed by the tumours in about 70-80% of kidney and ovarian cancers and roughly a quarter of pancreatic cancers, making it an attractive target for immune therapy.

But in real-world scenarios, some cells carry large quantities of CD70 while others appear negative in standard laboratory tests.

The researchers suspected that these negative cells might still produce small amounts of the protein.

To check this, they examined individual tumour cells and studied how the gene for CD70 was being regulated. They discovered that it was being suppressed by an enzyme called EZH2, which chemically modifies proteins around DNA.

These modifications tighten the DNA structure, making it difficult for the cell to read the gene and reducing CD70 production to very low levels. This effectively dimmed the signal, making the cells undetectable to current immune therapies.

Detailed imaging in two kidney cancer models found more than 90-95% of tumour cells that appeared CD70 negative by conventional tests still carried detectable amounts of the protein.

Scott Lowe, a cancer biologist at the Sloan Kettering Institute, said tumours may keep these tiny amounts of the protein because they still need it to survive. "If the cancer cells need some of the protein to stay viable, there may be evolutionary pressure to keep it at very low levels rather than lose it completely," he said.

The researchers called this phenomenon 'pseudo-heterogeneity' – the target protein is present in nearly all tumour cells but sometimes at levels too low for detection.

If cancer cells hide the target rather than eliminate it, the solution may be to build immune cells that detect faint signals.

Making T-cells more sensitive

To do this, the researchers developed a new receptor design called an IL-2-independent T-cell (IAIT) receptor.

Traditional CAR T-cells use receptors with molecular components that tell the immune cell when to attack. These triggers usually require a strong signal, meaning many copies of the target protein must be present on a cancer cell to elicit a response from T-cells.

The IAIT receptor takes a different approach. Instead of changing the strength of the signal, it connects the cancer-detecting sensor directly to the T-cell's natural activation pathway – the internal system T-cells normally use to recognise infected cells – while bypassing the HLA system, the genetic ID tag that T-cells usually require to identify a target.

By co-opting this natural machinery, the receptor becomes able to detect antigens at much lower densities than a synthetic CAR.

A cancer biologist who peer-reviewed the study for the journal said anonymously that the finding could change how CAR T therapies are designed. "If this principle holds for other tumour targets, it could change how we design CAR T therapies. Instead of searching for perfectly uniform targets, we may need receptors that can detect very low levels of antigen."

Testing the idea

The team tested the approach using xenograft models, in which real human tumour tissue is implanted in mice. These models closely mimic the complexity of cancers found in patients.

> If the cancer cells need some of the protein to stay viable, there may be evolutionary pressure to keep it at very low levels rather than lose it completely.
>
> **SCOTT LOWE**
> Cancer biologist at the Sloan Kettering Institute

In kidney cancer models, conventional CAR T cells initially shrank tumours but eventually failed. The remaining cancer cells, those with extremely low CD70 levels, survived and allowed the tumour to grow back.

The T-cells with the IAIT receptor however eliminated those previously undetectable tumour cells. The researchers also observed complete and lasting tumour eradication in several models of kidney, ovarian, and pancreatic cancer with these T-cells.

Potent versus safety

Increasing sensitivity raised one concern, however. "When you make immune cells better at detecting weak signals, you also have to be careful they don't start reacting to normal cells that carry small amounts of the same protein," the researcher quoted earlier said.

This problem is often called the "Goldilocks challenge" of cell therapy. To evaluate this risk, the researchers analysed a large single-cell atlas of 30 human tissues and 222 different cell types, finding that CD70 activity was largely absent from most vital organs such as the heart, lungs, and brain.

A significant exception was activated immune cells, which naturally express CD70 during immune responses. But even in those tissues, the proteins appeared only in a small fraction of cells, typically less than 1%.

In experimental models, the engineered T-cells did attack some activated immune cells but the researchers called the effects temporary and manageable.

The biologist noted that future therapies will have to include additional safeguards. "If these treatments move into patients, researchers will likely add safety systems such as molecular switches so doctors can turn the cells off if necessary."

A new hope

Professor Lowe said the finding fits a broader pattern cancer biologists have been observing for years.

There is strong evidence that changes in how genes are turned on or off in cancer cells (without changing the DNA itself) can help tumour cells survive targeted therapies, he said. "These cells, often called drug-tolerant persisters, can tolerate treatment and later allow the tumour to regrow."

The researcher quoted earlier has tempered expectations for now. "It is still a long way from bedside application but if this strategy works in clinical trials, it could help tackle the biggest hurdle in cancer immunotherapy," he said.

As he suggested, for patients with kidney or ovarian tumours, where treatment options are still limited, being able to uncover and eliminate these hidden cells could make a real difference.

Anirban Mukhopadhyay is a geneticist by training and science communicator from New Delhi.
anirban.genetic@south.du.ac.in

- **Key Terms and Explanations**
- **CAR-T Cell Therapy (Chimeric Antigen Receptor T-cell):** A form of immunotherapy where a patient's T-cells (a type of immune cell) are genetically engineered in a lab to produce receptors called CARs. These receptors allow the T-cells to recognize and kill specific cancer cells.
- **Antigen Heterogeneity:** A condition where different cells within the same tumor express different proteins (antigens). This makes it hard for targeted therapies to kill the entire tumor, as some cells "hide" by not expressing the target protein.
- **CD70:** A specific protein often found on the surface of certain cancer cells (like kidney and ovarian cancer). In this context, it is the "target" the T-cells are looking for.
- **Pseudo-heterogeneity:** A phenomenon where a target protein is actually present on almost all tumor cells, but in such low amounts ("faint signals") that standard tests and traditional CAR-T cells cannot detect them.
- **EZH2 Enzyme:** A protein that modifies DNA structure (epigenetics), effectively "dimming" the signal of proteins like CD70, making cancer cells invisible to the immune system.
- **HLA-independent T-cell (HIT) Receptor:** A newly developed, highly sensitive receptor that bypasses traditional immune signaling to detect even trace amounts of cancer proteins.

- **Main Arguments and Substantive Parts**
- The core thesis is that **the failure of CAR-T therapy in solid tumors isn't always because the target is missing, but because the signal is too weak.**
- **The Problem of "Invisible" Cells:** Traditional CAR-T cells are "blind" to cells with low antigen density. This leads to partial remission where the "visible" cells die, but the "invisible" ones survive and cause a relapse.
- **The HIT Receptor Solution:** Unlike synthetic CARs that require a high threshold of protein to activate, the HIT receptor connects directly to the T-cell's natural internal signaling pathway. This allows the T-cell to "sense" trace amounts of CD70.
- **Evidence of Success:** In mouse models using human kidney, ovarian, and pancreatic tumor tissues, HIT T-cells achieved complete and lasting eradication of tumors that conventional CAR-T cells could not clear.
- **The "Goldilocks" Challenge:** The primary counterargument is safety. If a receptor is too sensitive, it might attack healthy cells that express tiny, normal amounts of the same protein (off-target toxicity).

- **Historical Evolution of the Issue**
- **Late 19th Century:** William Coley (Father of Immunotherapy) used bacteria to stimulate the immune system against tumors.
- **1980s-1990s:** Identification of T-cells as the primary "soldiers" of the immune system; birth of the concept of "Chimeric" receptors.
- **2010s (The Turning Point):** First successful CAR-T trials for "liquid" cancers (leukemia and lymphoma). FDA approvals began around 2017.
- **Present Day:** The "Solid Tumor Frontier." While CAR-T revolutionized blood cancer treatment, solid tumors (which make up 90% of adult cancers) remained resistant due to the physical barriers of the tumor and antigen heterogeneity. This new research marks the transition into solving the "sensitivity" gap.

- **Way Forward**
- **Safety Switches:** Incorporating "suicide genes" into the engineered T-cells so doctors can "turn them off" if they start attacking healthy tissue.
- **Affordability:** Government-funded research and "Made in India" CAR-T initiatives (like the recently approved NexCAR19) to reduce costs.
- **Regulatory Streamlining:** Creating a fast-track but rigorous approval process for advanced biologics through the CDSCO.
- **Precision Diagnostics:** Using single-cell sequencing to map out which patients are the best candidates for HIT-receptor therapy.

- **Previous Years' Questions (PYQs)**
- **Prelims (2022):** With reference to the recent developments regarding 'Recombinant Vector Vaccines', consider the following statements...
- **Mains (2021, GS3):** What are the research and developmental achievements in Applied Biotechnology? How will these achievements help to uplift the poorer sections of the society?
- **Mains (2019, GS3):** What is Cas9 protein that is often mentioned in news?
- **Mains (2017, GS3):** Stem cell therapy is gaining popularity in India to treat a wide variety of medical conditions... Discuss briefly what stem cell therapy is and what advantages it has over other treatments.

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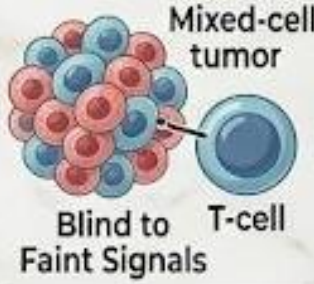
UPSC CIVIL SERVICES EXAM FOCUS: REVOLUTIONIZING CANCER THERAPY - HIT RECEPTOR CAR-T CELLS FOR SOLID TUMOURS

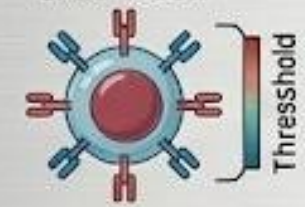
HISTORICAL CONTEXT & THE HETEROGENEITY CHALLENGE



- Legacy of Blood Cancer Success (e.g., leukemia)
- The Barrier of Solid Tumors: Antigen Heterogeneity (Patchwork cells)

THE HIT RECEPTOR INNOVATION: TURNING UP THE SIGNAL

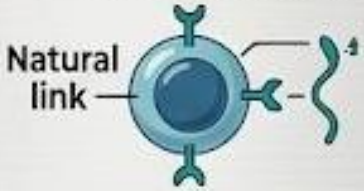
CAR-T cell



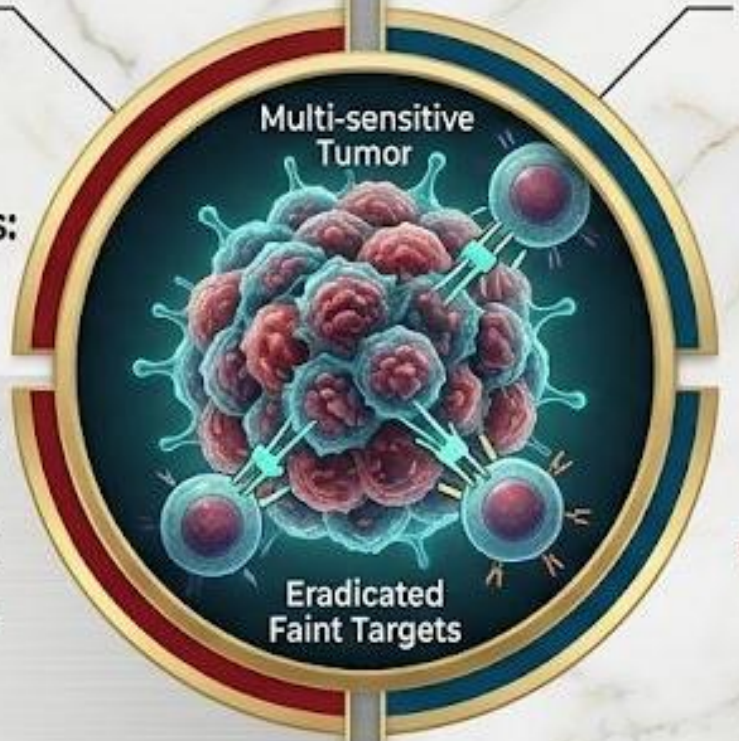
'Goldilocks' threshold, 'Goldilocks' threshold

VS

HIT Receptor T-cell



Bypasses standard signals, senses trace proteins.



MULTIDIMENSIONAL ANALYSIS (GS 2 & 3 Linkages)

- S&T Developments (Biotech/IPR)
- Health Sector Management (Article 21)
- Economic (Affordability/Made in India)
- Ethical (God-player vs. Moral imperative)

WAY FORWARD & SUSTAINABILITY

- Safety Switches
- Indigenous Production (Atmanirbhar Biotech)
- Policy/Regulatory Streamlining
- Precision Diagnostics

Light pollution threatens the world's clearest skies

Associated Press

It takes a moment for the eyes to adjust. A faint spark appears in the darkness; then another, brighter one. Soon, stars, planets and entire constellations emerge. Before long, a whole galaxy stretches across the sky, visible to the naked eye.

In Chile's Atacama Desert, the night sky feels infinite. Considered the driest place on the earth, its darkness is also one of the clearest windows to the universe.

A rare combination of dry climate, high altitude, and isolation from urban light pollution makes the Atacama an unrivalled hub for world-class astronomy and home to the world's largest ground-based astronomical projects.

"The conditions in the Atacama Desert are unique in the world," said Chiara Mazzucchelli, president of the Chilean Astronomical Society. "There are more than 300 clear nights per year, meaning no clouds and no rain."

But these skies may be at risk.

A rare combination of dry climate, high altitude, and isolation from light pollution makes the Atacama a hub for astronomy and home to some of the largest astronomical projects

Last year, the desert became a battleground between scientists and an energy firm proposing a green power complex just kilometres from the Paranal Observatory. Managed by the European Southern Observatory (ESO), the site also is the future home to what is to be the most powerful optical telescope.

Although the energy project was cancelled in January following an appeal from astronomers and physicists, it exposed concerns that existing sky preservation laws are outdated and unclear. Since then, several environmental regulations have come under review.

The so-called Photon Valley in Chile is a high-altitude corridor where several observatories operate side by side using some of the most sophisticated instruments ever engineered.

"ESO's telescopes in particular are the most powerful astronomical facilities on the planet," said Itziar de Gregorio-Monsalvo, the ESO representative in Chile.

Every year, the Atacama Desert draws thousands of astronomers and scientists from around the world. "We are lucky to be here," said Julia Bodensteiner, an assistant professor at University of Amsterdam.

Walking across the Atacama's rocky, uneven terrain is no easy task. At altitudes exceeding 3,000 m, oxygen becomes a luxury, while scorching days give way to relentlessly cold nights. But for space observation, the more than 105,000 sq. km of desert are the perfect setting.

The exceptional conditions of the Atacama have enabled some of the most ambitious astronomical projects ever conceived, like the Extremely Large Telescope, ELT – a $1.5 billion endeavor by ESO scheduled for completion in 2030.

With 798 mirrors and a light-gathering area of nearly 1,000 square metres, the ELT will be 20 times more powerful than today's leading telescopes and 15-times sharper than Hubble Space Telescope.

Twenty years ago, the Atacama Desert was "an ocean of darkness," recalled Eduardo Unda-Sanzana, director of the Astronomy Center at the University of Antofagasta.

Over the years, however, the landscape has changed drastically. Driven by urban sprawl, industrial development, and the arrival of mining and wind farms, the desert has become coveted territory where balance is not always easy to reach.

- **Key Terms and Explanations**
- **Light Pollution:** The excessive, misdirected, or obtrusive artificial light produced by human activities. It obscures the stars, disrupts biological rhythms, and interferes with astronomical research.
    - *Example:* The "skyglow" seen over cities that prevents residents from seeing the Milky Way.
- **Bortle Scale:** A nine-level numeric scale that measures the night sky's brightness of a particular location. Class 1 represents the darkest possible skies (like the Atacama), while Class 9 is inner-city sky.
- **Ground-Based Astronomy:** The use of telescopes located on Earth's surface to observe celestial bodies. Unlike space telescopes (e.g., Hubble), these are easier to maintain but are highly dependent on atmospheric clarity.
- **Photon Valley:** A metaphorical term for regions (like northern Chile) with a high concentration of sophisticated astronomical observatories, highlighting their economic and scientific value.
- **Optical Telescope:** An instrument that gathers and focuses light, mainly from the visible part of the electromagnetic spectrum, to create a magnified image.

- **Main Arguments and Substantive Parts**
- The core thesis posits that **the world's premier "windows to the universe" are under existential threat from human expansion.**
- **The Goldilocks Conditions:** Locations like the Atacama are irreplaceable due to three factors: extreme aridity (minimal water vapor to distort light), high altitude (thinner atmosphere), and historical isolation.
- **The Conflict of Interests:** There is a growing tension between "green energy" goals (wind/solar farms) and "pure science" (astronomy). While both are environmentally/socially positive, their physical proximity creates interference.
- **The Technological Leap:** Projects like the **Extremely Large Telescope (ELT)** represent the pinnacle of human engineering, capable of seeing 15 times sharper than Hubble. However, their $1.5 billion investment is at risk if local light pollution isn't regulated.
- **Regulatory Lag:** Environmental laws often focus on land, water, and air pollution, frequently neglecting "darkness" as a natural resource that requires legal protection.

- **Historical Evolution of the Issue**
- **Pre-20th Century:** Astronomy was primarily conducted near population centers (e.g., Greenwich, Paris). Darkness was an abundant, unmanaged resource.
- **Mid-20th Century (1960s-70s):** Increasing urban glow forced astronomers to remote sites. The European Southern Observatory (ESO) began establishing hubs in Chile.
- **Late 20th Century:** The advent of LED lighting and rapid urban sprawl accelerated sky degradation globally.
- **Present Day:** The Atacama, once an "ocean of darkness," now faces encroachment from mining, energy infrastructure, and urban sprawl. The cancellation of energy projects in early 2026 marks a turning point where "sky preservation" is becoming a legal priority.

- **Way Forward**
- **Technological Mitigation:** Use of "warm" LEDs (low blue light) and shielded fixtures that point light strictly downwards.
- **Zoning:** Establishing **International Dark Sky Reserves** with a 100km "buffer zone" around major observatories.
- **Policy Integration:** Including "Dark Sky Impact Assessments" in the Environmental Impact Assessment (EIA) for any project in sensitive regions.
- **Citizen Science:** Promoting astro-tourism to create a local economic incentive for keeping the skies dark.

- **All Previous Years' UPSC Questions**
- **Prelims (2023):** Questions on the site of the world's highest observatories and India's Hanle Dark Sky Reserve.
- **Mains (GS 3, 2017):** "India has achieved remarkable successes in unmanned space missions... Examine the importance of such missions." (Relevant to the shift from ground to space observation).
- **Mains (GS 1, 2021):** Questions on the impact of globalization on traditional cultural values (losing the night sky as a cultural heritage).

Light Pollution Threatens the World's Clearest Skies

Analyzing the loss of a cosmic 'window', endangened multi-billion dollar research infrastructure

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GLOBAL DARK SKY SANCTUARIES

WHAT MAKES ATACAMA UNIQUE? THE "GOLDILOCKS" EFFECT

Extreme Aridity
Dry desert is monte and in the dry desert

High Altitude (>3000m)
Cloud-free sky shoves cloud free annonother the earth

Isolation from Urban Light
Remote location from resoure os open enfrastructures

Extremely Large Telescope (ELT)

Mirror structure

798 mirrors

15x sharper

$1.5B

Prtropapnehic cost :55% comparon acially insaltor at investment at risk

THE CHALLENGE: ENCROACHING FORCES

Urban Sprawl
Urban sprawl, Industrial develmetat

Industrial Development
Industrial development, and noting from urban projects

Mining Activity
Mining activity and enrranges from mote mining activity

Green Energy Projects (proximity issue)
Green energy projects project wram issue

- Canceled Photon Valley project is exposed concerrating the worldbar project

A MULTIDIMENSIONAL ANALYSIS (UPSC PERSPECTIVE)

Social
Indigenous links to stars
- Endrepoints and Itotations

Political
Sovereignty over space research
- Goverdment erurereachs

Legal
Constitutional right to dark skies
- New regulations to use legan

Ethical
Development vs. Pure Science
- Development ifrom regulation

Economic
Astro-tourism potential vs. Mining
- Real to sosearch resoration

International
Collaborative research loss

THE WAY FORWARD: SMART SOLUTIONS

- Dark Sky Impact Assessments
- International Dark Sky Reserves with 100km buffer zones
- Sky Preservation Laws
- Sky Preservation Laws

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Rajnath in Bishkek for SCO meeting

Event brings together the Defence Ministers of SCO member states; Minister is expected to hold bilateral discussions with his counterparts

Saurabh Trivedi
NEW DELHI

Defence Minister Rajnath Singh on Monday arrived in Bishkek, Kyrgyz Republic, leading a high-level Indian delegation for the Shanghai Cooperation Organisation (SCO) Defence Ministers' Meeting on Tuesday.

On the sidelines of the meeting, Mr. Singh is expected to hold bilateral discussions with his counterparts from Belarus, Kazakhstan, Kyrgyz Republic, and other participating nations, aimed at strengthening defence cooperation and expanding strategic ties.

Sources in the Defence Ministry said the meeting would bring together the Defence Ministers of SCO member states to deliberate on key regional and global security challenges, international peace, counter-terrorism efforts, and enhancing defence collaboration within the grouping.

The discussions are being held amid ongoing geopolitical tensions linked to the West Asia crisis, with member countries likely to explore measures to mitigate the impact of the conflict on regional stability.

India connect: Defence Minister Rajnath Singh with members of the Indian diaspora in Bishkek, Kyrgyz Republic on Monday. PTI

The Defence Minister will underscore Indian stance of zero tolerance towards terrorism, extremism

During the meeting, Mr. Singh is expected to reiterate India's commitment to global peace and stability, while underscoring its firm stance of zero tolerance towards terrorism and extremism in the face of evolving security challenges.

Established on June 15, 2001 in Shanghai, the SCO is one of the largest regional organisations focusing on political, economic, and security cooperation. Its members are India, Russia, China, Kazakhstan, Kyrgyz Republic, Pakistan, Tajikistan, Uzbekistan, Iran, and Belarus.

India became a full member of the SCO in 2017 and assumed the rotating chairmanship in 2023, further deepening its engagement with the grouping.

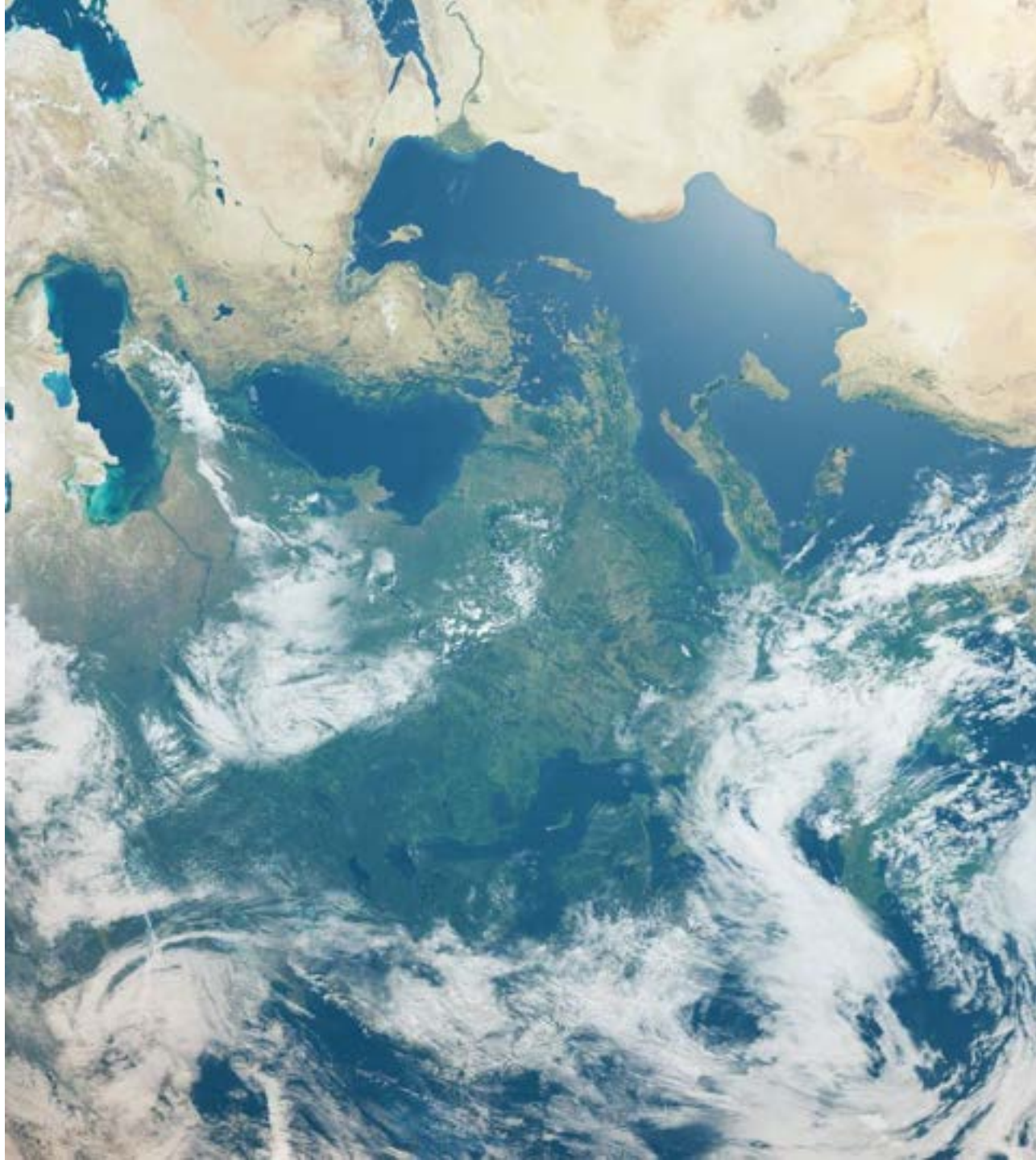
- **Key Terms and Explanations**
- **SCO (Shanghai Cooperation Organisation):** A permanent intergovernmental international organization founded in 2001. It is a Eurasian political, economic, and military organization aiming to maintain peace, security, and stability in the region.
- **Bilateral Discussions:** Formal talks conducted between two sovereign states. Unlike multilateral forums, these allow for the specific resolution of "neighborhood" issues (e.g., India-Kazakhstan defense ties).
- **Strategic Ties:** Relationships between nations that go beyond simple trade, involving long-term security cooperation, intelligence sharing, and defense technology transfers.
- **Zero Tolerance Towards Terrorism:** A policy framework where no distinction is made between "good" and "bad" terrorists, and any act of terror is met with absolute condemnation and counter-action.
- **Rotating Chairmanship:** A system where the leadership of the SCO moves between member states annually, allowing each nation to set the agenda (India held this in 2023).

- **Main Arguments and Substantive Parts**
- The core focus of this diplomatic engagement centers on three pillars:
- **Regional Stability Amid Global Volatility:** The dialogue occurs against the backdrop of the West Asia crisis and Eurasian tensions. The argument is that regional players must take the lead in stabilizing their own "backyard" rather than relying on external Western interventions.
- **The "Double-Arch" Threat:** India emphasizes the fight against the "three evils" identified by the SCO: **terrorism, separatism, and extremism**. The substantive part of India's stance is that regional prosperity is impossible without a secure environment.
- **Defense Collaboration:** Moving from mere "buyer-seller" relationships to joint exercises, capacity building, and interoperability among the armed forces of member states.

- **Historical Evolution of the Issue**
- **1996 (The Shanghai Five):** China, Russia, Kazakhstan, Kyrgyzstan, and Tajikistan formed a group to resolve border disputes post-USSR collapse.
- **2001 (Birth of SCO):** Uzbekistan joined, and the group transitioned into a formal regional cooperation entity.
- **2005 (India as Observer):** India began its association, recognizing the Central Asian region as part of its "extended neighborhood."
- **2017 (Astana Summit):** India and Pakistan became full members, marking a shift where the SCO represented 40% of the world's population.
- **2023–Present:** India's chairmanship and subsequent active participation (like the Bishkek meeting) highlight its attempt to balance its ties with the West (Quad) while remaining a key player in the Eurasian heartland.

- **Way Forward**
- **Strengthening RATS:** India must push for a more robust Regional Anti-Terrorist Structure with actionable intelligence sharing.
- **Chabahar Port:** Rapidly developing the Chabahar port in Iran to provide a viable alternative to the China-led BRI routes.
- **Digital Sovereignty:** Proposing an SCO-wide framework for cybersecurity, an area where India has significant expertise.

- **Previous Years' Questions (PYQs)**
- **UPSC 2021 (GS2):** "Critically examine the aims and objectives of SCO. What importance does it hold for India?"
- **UPSC 2016 (GS2):** "The decisions of the SCO are based on the 'Shanghai Spirit'. Discuss."
- **APSC 2022:** "Analyze the significance of Central Asia in India's 'Extended Neighbourhood' Policy."



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SCO DEFENCE MINISTERS' MEETING: A DETAILED ANALYSIS

GEOPOLITICAL CANVAS & TIMELINE

1996	2001	2017	2023
Shanghai Five	Birth of SCO	India Joins	India Chairmanship

MAJOR CHALLENGES & KEY TAKEAWAYS

CHALLENGES

- The China Factor (BRI clashes)
- The Pakistan Dilemma (RATS efficacy)
- Connectivity gaps

WAY FORWARD

- Strengthening RATS
- Developing Chabahar Port
- Proposed SCO Digital Sovereignty

INDIA'S MULTI-DIMENSIONAL ENGAGEMENT

REALPOLITIK

- **Mandala Theory:** China and econ- memball ts as oxonec amnost and preminal wonds.
- **Strategic Autonomy:** Vera to con- commnate their regional capins.

SECURITY INDIVISIBILITY

SCO security is India's security is as security to maliters at andwlers and as India's security.

"EXTENDED NEIGHBORHOOD"

The strategic depth of Central Asia are competitiuy afford to contral to eomuin the strategies in monitor ing options.

KEY THEMATIC PILLARS

- **REGION STABILITY**
- **ZERO TOLERANCE** — TERRORISM, EXTREMISM
- **DEFENCE COLLABORATION** — JOINT EXERCISES

A PHOTO ILLUSTRATION

India connect: Defence Minister Rajnath Singh with members of the Indian diaspora in Bishkek, Kyrgyz Republic. PTI

- **Indian Stance Underscored:** Indian stance of zero tolerance towards terrorism, extremism