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The Analyst

CURRENT AFFAIRS Handout

4th July 2026



Inside India's Defence Indigenisation



CONTEXT: On July 3, 2026, Rajnath Singh sat at the head of the **Defence Acquisition Council** table and cleared weapons worth **₹52,000 crores**.

What Actually Happened on July 3, 2026



Ministry of Defence

"Acceptance of Necessity"

DAC approves capital acquisition proposals worth Rs 52,000 crore to enhance combat readiness of Defence Forces

प्रसिद्धि तिथि: 03 JUL 2026 4:02PM by PIB Delhi

1999 Kargil War
2001: 'Reforming the National Security System'

EXECUTIVE body u/Mod

Objective: It ensures the optimum utilisation of allocated budgetary resources to **upgrade military capabilities** within **specified timeframes**.

Composition of the Council

NEWS

Rs 52,000 crore defence boost: DAC clears missiles, drones and surveillance systems to strengthen Army, Navy and Air Force

What Exactly Got Approved: "land warfare has changed"

For the Army

Akash Tarang	Anti-UAV Electronic Warfare System
MPATGM (Man Portable Anti-Tank Guided Missile)	Infantry-carried anti-tank missile
MRSAM (Medium Range Surface-to-Air Missile)	Mid-range air defence
V-SHORADS (Very Short Range Air Defence System)	Multi-spectral sensing air defence
Active Protection Systems	Tank self-defence
Jet-based Kamikaze drones	One-way attack drones

Why It Matters

Jams/defeats hostile drones – seen in *Ukraine* and *Nagorno-Karabakh*

Lets a soldier on foot destroy an enemy tank – no vehicle-mounted launcher needed

Covers the **gap** between short-range air defence and long-range systems like S-400

Protects against **low-flying**, fast threats that slip under radar

Intercepts incoming anti-tank missiles/rockets *before* they hit the tank

Electronic warfare + lethal, **cost-effective** strike



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For the Navy

Multi Influence Ground Mines

Naval Shipborne Unmanned Aerial Systems

Land Based Testing Facility for Electric Propulsion

What It Does


Sea mines that detect ships via multiple signatures (magnetic, acoustic, pressure) – **sea denial** tool

Drones launched from ships for **surveillance** and **situational awareness**

A facility to **test electric propulsion systems** before they go on actual ships

India's Indigenous Fleet in Action

From aircraft carriers to submarines – a self-reliant force shaping the oceans



SURFACE FLEET HIGHLIGHTS		SUBMARINE & UNDERWATER TECH
INS Vikrant (IAC-1) India's first indigenous aircraft carrier	Project 17A INS Nilgiri, INS Himgiri, INS Udaygiri and INS Vindhyagiri	Project 75 Kalvari-class: Kalvari, Khanderi, Karanj, Vela, Vagir, Vagsheer
Project 15B INS Visakhapatnam, INS Mormugao, INS Imphal and INS Surat	Project 15A INS Kolkata, INS Kochi and INS Chennai	Indigenous Air Independent Propulsion (AIP) Developed by DRDO-NMRL for future submarines.
Project 17 NS Shivalik, INS Satpura, INS Sahyadri	Survey Vessel Large INS Nirdeshak, INS Ikshak and INS Sandhayak	Advanced Sonar Systems USHUS-2, ABHAY, ALTAS

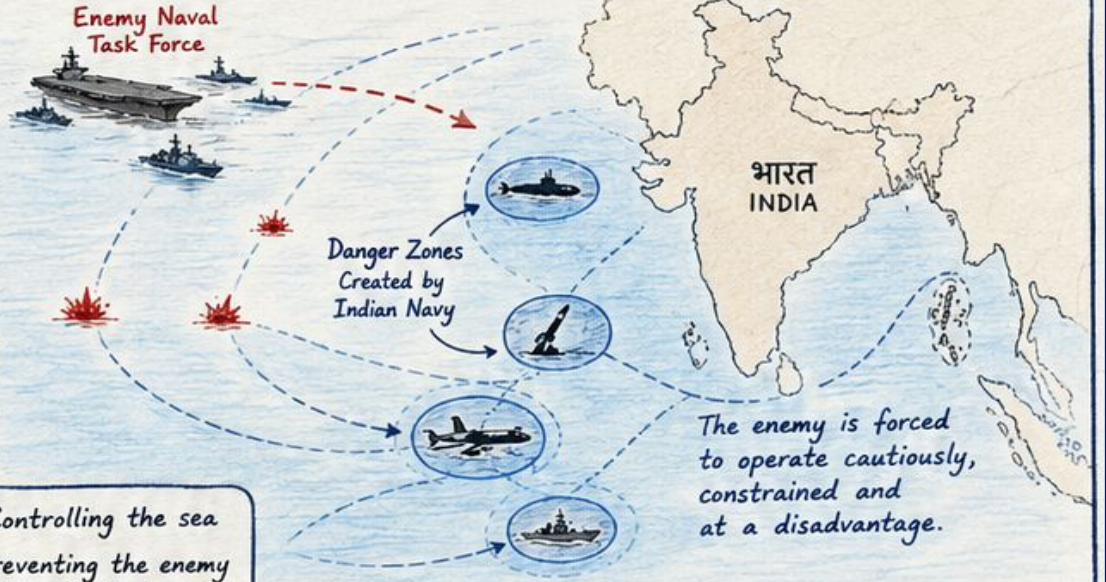


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THE CONCEPT

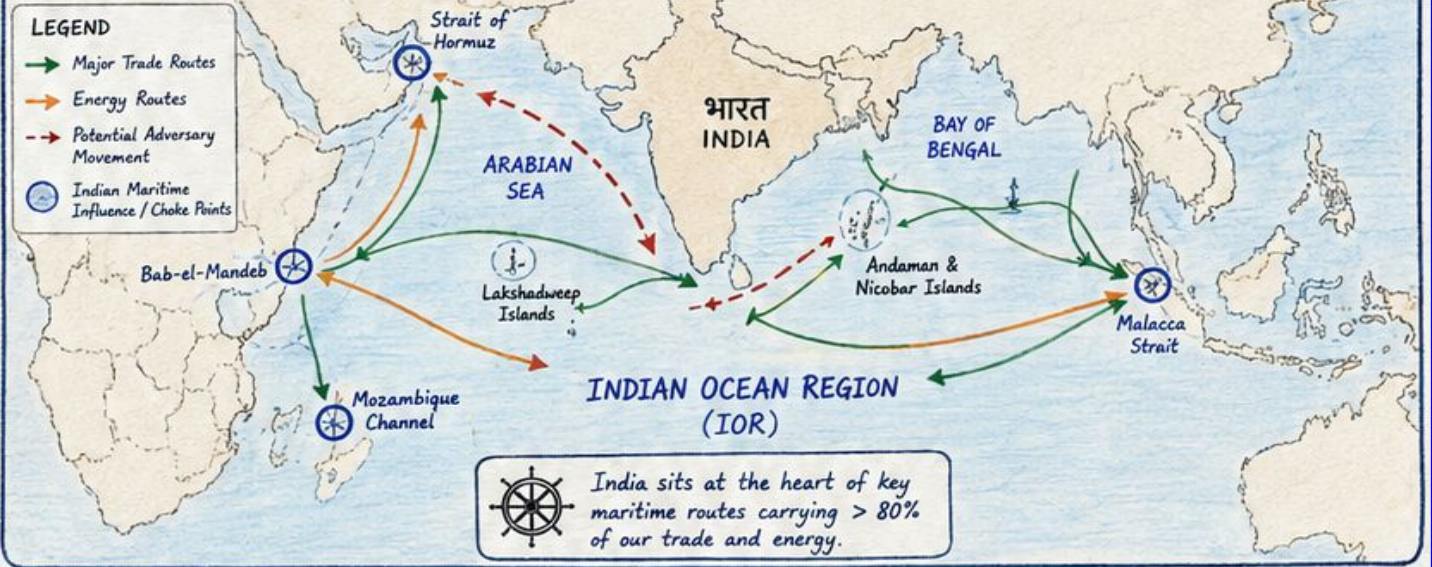
- Enemy fleet enters the Indian Ocean...
- Indian Navy does not need to occupy the entire ocean.
- Instead, we create multiple danger zones that make operations too costly and risky.



Sea Denial \neq Controlling the sea
Sea Denial $=$ Preventing the enemy from using it effectively

INDIAN OCEAN STRATEGIC MAP

- LEGEND
- Major Trade Routes
 - Energy Routes
 - - -> Potential Adversary Movement
 - ⊗ Indian Maritime Influence / Choke Points



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MEET HAPS — INDIA'S VERY OWN UNMANNED AERIAL VEHICLE

Can fly 20 km high
Can float for months

Solar-powered "pseudo satellite"

Increases surveillance and monitoring capabilities

Cost significantly lower than satellites

23-kg prototype with a 12-metre wingspan

Tested for 8.5 hours reaching 3 km altitude

Aiming for 24-hour flight test to evaluate power generation

Deployment target by 2027

Useful for continuous surveillance of border areas

Can aid in disaster situations and provide mobile communications networks

Developed by National Aerospace Laboratories, Bengaluru

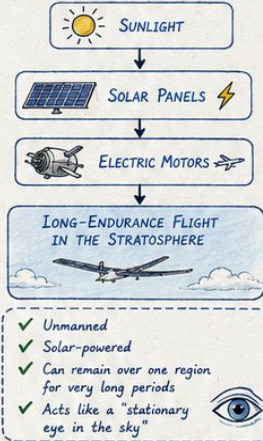
Aims to enhance India's high-endurance, high-altitude capabilities

Potential for industrial production post further development milestones



1st test flight of a prototype was conducted last week

HOW DOES IT WORK?

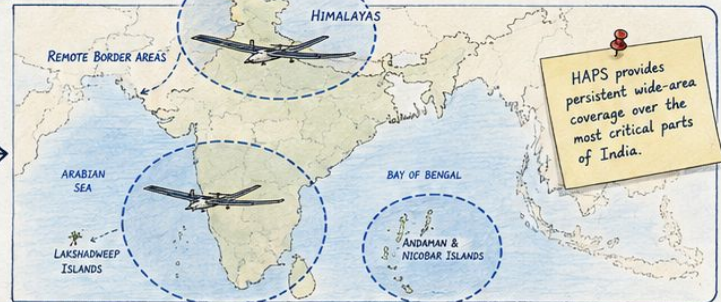


WHY THE INDIAN AIR FORCE WANTS IT

- PERSISTENT INTELLIGENCE**
Watch border regions continuously.
- SURVEILLANCE & RECONNAISSANCE (ISR)**
Monitor troop movement and activities.
- TELECOMMUNICATIONS**
Act like a temporary communication tower in the sky.
- REMOTE SENSING**
Monitor disasters, weather, and terrain.

WHY IT IS USEFUL FOR INDIA

- Difficult Terrain
- Long Borders
- Islands and Oceans
- Disaster-Prone Regions



COMPARISON TABLE

FEATURES	AIRCRAFT	HAPS	SATELLITE
Operating Altitude	Low Altitude	Stratosphere (18-50 km)	Space (600 km +)
Endurance	Hours	Weeks or Months	Years
Returns to Base	Returns to Base	Returns to Base	Cannot return easily
Coverage Area	Small Coverage	Large Regional Coverage	Global Coverage
Cost	Cheap	Medium Cost	Extremely Expensive
Launch Requirement	Runway Take-off	Runway Take-off	Rocket Launch
Maintenance / Upgrade	Easy	Easy (comes back for repairs)	Difficult / Usually Impossible

FINAL TAKEAWAY

A Fixed-Wing High Altitude Pseudo Satellite is essentially a solar-powered unmanned aircraft that behaves like a low-orbit satellite — providing persistent surveillance and communications without ever needing to be launched into space.

Think of it as an "EYE IN THE SKY" that can come back home for servicing and fly again.



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DAP 2020 and the Category Hierarchy

Every procurement decision made by the DAC is governed by a strict category hierarchy established under the **Defence Acquisition Procedure (DAP) 2020**

The Procurement Category Ladder – Highest to Lowest Priority

1 (Highest)	Buy (Indian-IDDMM)	Indigenously Designed, Developed & Manufactured
2	Buy (Indian)	Made in India , but design may not be fully Indian
3	Buy and Make (Indian)	Initial import => Domestic manufacture under licence
4	Make I / Make II	Government/ industry; indigenous development programmes
5	Strategic Partnership Model	Foreign OEM + Indian pvt co for long-term co-production
6	Buy Global – Manufacture in India	Foreign design , but manufacturing must be domestically
7 (Lowest)	Buy Global	Direct import – “when no other category can meet need”

Institutional Toolkit – What's MORE!?

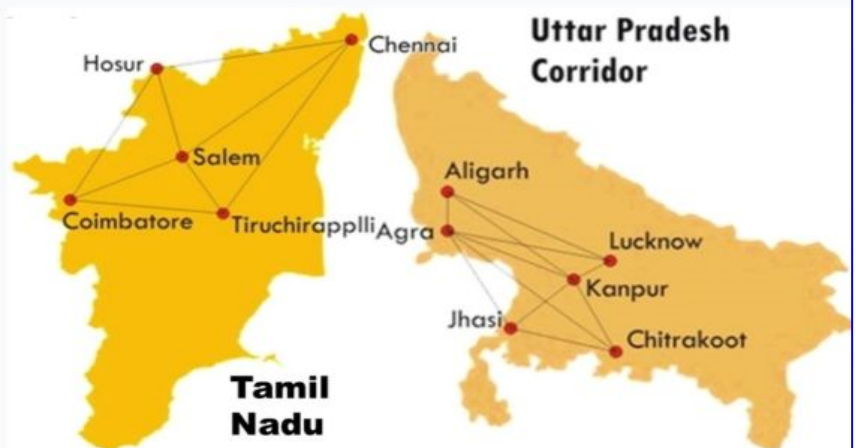
Positive Indigenisation Lists
(Five lists; 5,012+ items)

SRIJAN Portal
(15,700+ items indigenised)

iDEX
(600+ startups engaged, 430+ contracts)

Defence Procurement Manual, 2025

Draft DAP 2026



“guarantees indigenous manufacturers **5-year assured orders**”

- Proposes **raising indigenous content requirements up to 60%**
- Simplified acquisition** categories

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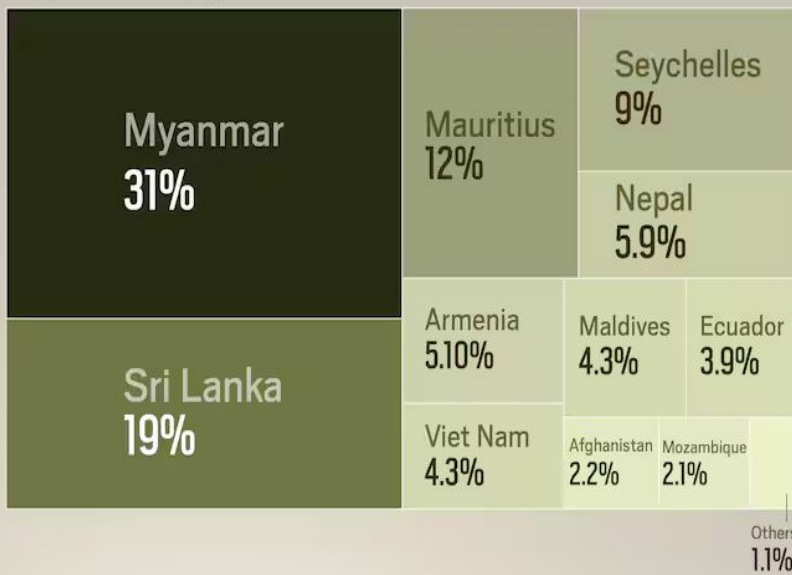


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India's Defence Transformation, 2014-2026

Indicator	2013-14 / 2014-15	2025-26 / 2026-27	Change
Defence Budget	₹2.53 lakh crore	₹7.85 lakh crore	+210%
Capital Expenditure (spent on new acquisitions)	₹94,588 crore	₹2.19 lakh crore	+132%
Domestic Defence Production	₹46,429 crore	₹1.78 lakh crore	~4x
Defence Exports	₹686 crore	₹38,424 crore	~56x
Countries India exports to	Handful	80+	—

Key defense partners



- About **93% border** with Pakistan fenced
- 100+** terrorists and 9 terror bases eliminated in Operation Sindoor
- Zero incidents** of stone pelting in J&K since 2023
- 1st national counter-terror strategy** PRAHAAR launched for coordinated response
- Almost 80% border** with Bangladesh fenced
- Rs.2.19 lakh Cr** allocated for defence modernisation in 2026-27
- 82% decline** in North-East insurgency
- 6,800 km roads** constructed by BRO in forward areas
- Rs.27,000 Cr** approved for 52 defence satellites
- 20% destruction** of Pakistan Air Force infrastructure during Operation Sindoor
- Rs.5,200 Cr revenue** earned by BrahMos Aerospace in FY26
- Around Rs.48,000 Cr deal** for 83 Tejas Mk1A fighter jets

12 YEARS OF SCALING UP INDIA'S NATIONAL SECURITY

12 YEARS, 12 ACHIEVEMENTS



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INDIA'S DEFENCE MILESTONES

2014-2026

A DECADE OF INDIGENOUS STRENGTH & STRATEGIC CAPABILITY



2015



AKASH SAM

Inducted in Army Air Defence Corps

- DRDO-developed short-to-medium range surface-to-air missile system.
- Capable of engaging targets up to 25 km.

2016



TEJAS Mk1

- India's first indigenous light combat aircraft (DRDO/HAL).
- Inducted into 45 Squadron "Flying Daggers" at Sulur.

2019



MISSION SHAKTI ASAT Test

- Showcased India's capability to destroy satellite in low earth orbit.
- Made India the 4th nation after the USA, Russia and China to demonstrate a live anti-satellite kill capability.

2020



RAFALE-17 SQUADRON "GOLDEN ARROWS"

- 36 Rafale multirole fighters inducted at Ambala on 10 Sept 2020.
- Equipped with Meteor BVR missiles, HAMMER bombs & Spectra EW suite.

2020



RUDRAM-1

- New generation Anti Radiation Missile (RUDRAM) flight tested successfully in 2020.

2021



S-400 TRIUMF-1ST SQUADRON (INDIA-RUSSIA)

- First S-400 squadron delivered and operationalised.
- Can track & destroy aircraft, cruise missiles & ballistic missiles up to 400 km away.

2021



HELINA / DHRUVASTRA Helicopter-launched ATGM

- Joint trials of Helina (Army) and Dhruvashtra (IAF) from Advanced Light Helicopter (ALH) platform successful.

2022



INS VIKRANT

India's first indigenous aircraft carrier

- Commissioned on 2 Sept 2022 at Cochin Shipyard Limited.
- 262 m long, 45,000 tonnes displacement.
- Built with over 75% indigenous content.

2022



HAL LCH "PRACHAND" Light Combat Helicopter

- LCH indigenously designed with 45% made-in-India components.
- Aerial combat capability of operating at an altitude of over 5000m.

2022



BRAHMOS EXTENDED RANGE (450 KM) - AIR - LAUNCHED

- Successful air-launch of 450 km range BrahMos from Su-30MKI in May 2022.
- World's fastest operational cruise missile for deep-strike capability.

2024



INS ARIGHAAT

- 2nd Nuclear Ballistic Missile Submarine
- Strengthens India's nuclear triad at sea.

2024



LONG RANGE ANTI-SHIP HYPERSONIC MISSILE

- DRDO Conducts the successful flight trials of India's first Long Range Hypersonic Missile (LR-ASHM)

2024



MISSION DIVYASTRA Project 75 Complete

- DRDO conducted First Trial of Agni 5 with Multiple Independently Targetable Re-Entry Vehicle (MIRV).

2025



6TH SCORPENE (VAGSHEER) Project 75 Complete

- INS Vagsheer, 6th & final Kalvari-class submarine.
- Built at Mazagon Dock Limited under Project 75. (DRDO-Naval Group France collaboration).



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Taking stock

The data for the charts were taken from the Department of Defence production, Ministry of MSME, and the NSE

Chart 1: The change in the indices before and after Operation Sindoor, in April and May 2025 (in %)

Defence companies were outperformed by Nifty50 companies before the strikes

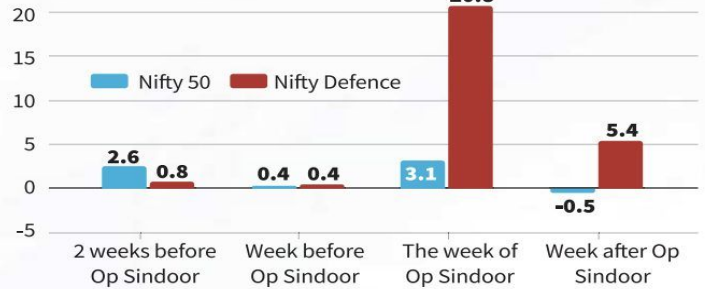


Chart 2: The total value of defence production (in ₹ crore) and its rate of growth (in %)



Chart 3: The total value of defence export (in ₹ crore) and its rate of growth (in %)

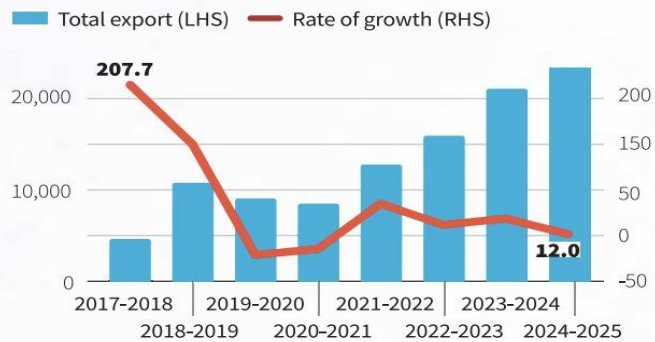


Chart 4: The share of private defence companies in total defence production (LHS) and exports (RHS)

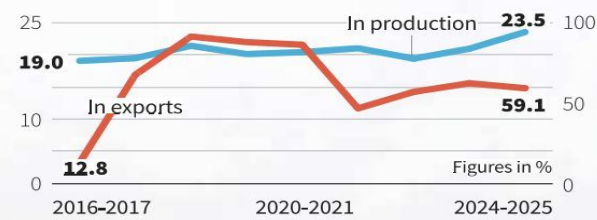
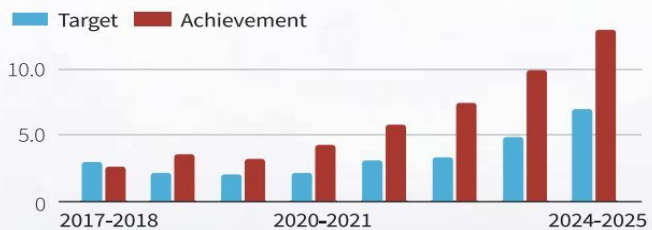


Chart 5: The target set and achieved for public procurement from MSMEs by the Defence Ministry (in ₹ '000 crore)



In ₹ lakh crore. India's defence production touched a record high in 2023-24 (FY24) growing at 17% compared to the previous year

1.3

Private companies accounted for about 20% of the total defence production in FY17 which continued till FY24. In FY25, their share has increased

24%



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The Honest Gaps: What Answers Should Also Acknowledge

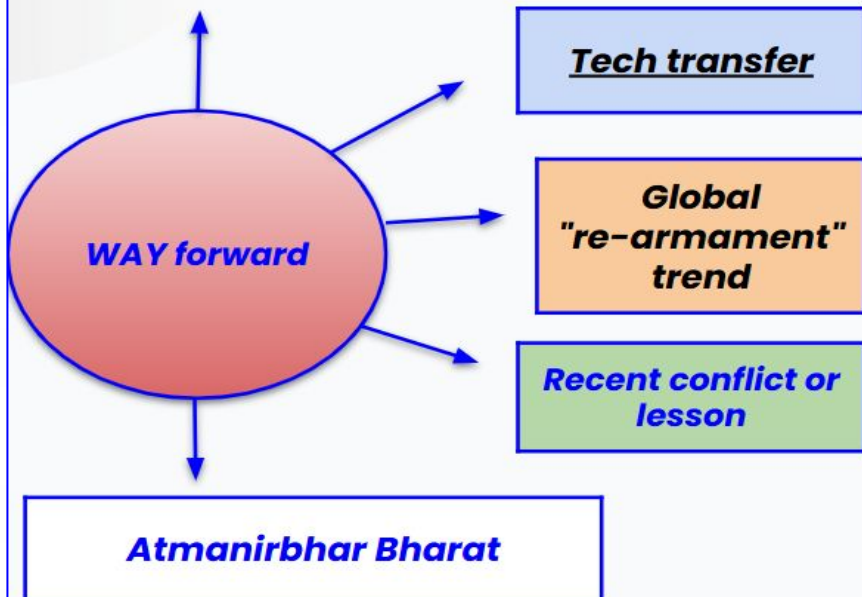
Challenges

- Structurally reliant on foreign OEMs; = import-dependent**
- "Assembled in India" vs. "Designed in India"**
- Procurement timelines (AoN delivery 2-4+ years)**
- Testing & certification infrastructure**
- Critical technology**

Tejas Mark I	GE in US
Su-30MKI + Rafale	Russia/France
Submarine AIP	French/ German
Electronic Warfare	Shakti/ Isr, Fr, US
Ring Laser Gyros and Fiber Optic Gyros	Fr + Rus + US + Isr

Connecting to the Wider Canvas

"Emerging net exporter"



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UPSC PYQ (Mains) 2020

CASE STUDY: The **Chairman of Bharat Missiles Ltd (BML)** was watching a program on TV wherein the Prime Minister was addressing the nation on the necessity of developing a self-reliant India. He subconsciously nodded in agreement and smiled to himself as he mentally reviewed BML's journey in the past two decades. **BML had admirably progressed** from producing first-generation anti-tank guided missiles (ATGMs) to designing and producing state of the art ATGM weapon systems that would be the envy of any army. He sighed in reconciliation with his assumptions that the government would probably not alter the status quo of a ban on the export of military weaponry.

To his surprise, the very next day he got a telephone call from the Director-General, Ministry of Defence, asking him to discuss the modalities of **increasing BML production of ATGMs as there is a probability of exporting the same to a friendly country**. The Director-General wanted the Chairman to discuss the details with his staff in Delhi next week.

Two days later, at a press conference, the Defence Minister stated that he aims to double the current weapons export levels within five years. This would give an impetus to financing the development and manufacturing of indigenous weapons in the country. He also stated that all indigenous arms manufacturing nations have a very good record of the international arms trade.

As the Chairman of BML, what are your views on the following points?

1. As an arms exporter of a responsible nation like India, what are the **ethical issues** involved in arms trade?
2. List **five ethical factors** that would influence the **decision to sell arms** to foreign governments.

Mains Practise Question

India is accounting for roughly a tenth of global arms imports in recent years. Every imported weapons system carries a latent vulnerability. Comment on the need for why indigenisation matters.

(15 Marks, 250 words)

DEFENCE SUPPLIERS TO INDIA



Country	Range of Products	Examples
Russia	Fighter jets, submarines, missiles, tanks	Su-30MKI fighter aircraft, T-90 tanks, S-400 missile defense system, Sukhoi
United States	Aircraft, maritime patrol aircraft, helicopters	Lockheed Martin C-130J Super Hercules transport aircraft, Boeing P-8I Poseidon for maritime surveillance
France	submarines, missiles, Fighter aircraft	Scorpene-class submarines through P75 project, Dassault Rafale fighter jets
Israel	radars, drones, Missile defence systems	Spyder air defence system, Heron UAVs, Barak-8 surface-to-air missile (SAM) system
United Kingdom	aerospace components, advanced technology, Military equipment	Westland Helicopters, SEPECAT Jaguar Ground Attack Aircraft, Hawk advanced jet
Germany	Engines, Submarines, and machinery	trainer (AJT) aircraft, Rolls Royce Engines HDW submarines (Shishumar-class) under Project 75

CONTEXT: Article on [India's Water Security Crisis](#)

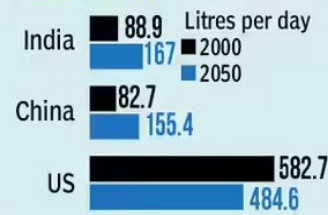
Some recent data on Water Security in India

INDIA'S WATER DEMAND



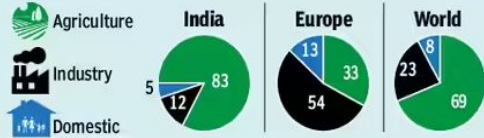
*Demand declines as population starts declining and water use is more efficient

PER CAPITA WATER USE



INDIA CONSUMES MOST OF ITS USABLE WATER FOR AGRICULTURE PURPOSES, WHILE HOUSEHOLDS GET ONLY 5% OF IT

WATER USE SHARES (%)



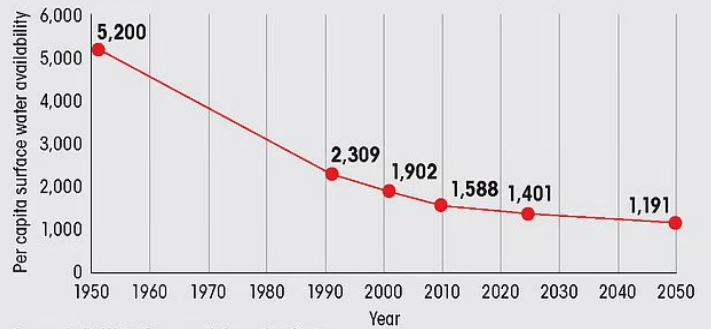
Source: GOI, IWMI, UN

India is home to **18%** of global population

but it has only **4%** of global water resources

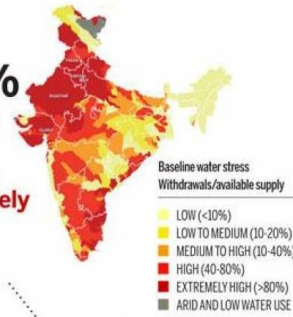
Surface water scarcity

Between 1950 and 2024, India has seen a decline of 73 per cent in per capita surface water availability



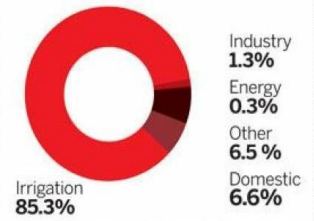
Source: India Water Resource Information System

54% of India faces **high to extremely high** water stress



Source: World Resources Institute

The Water Consumer

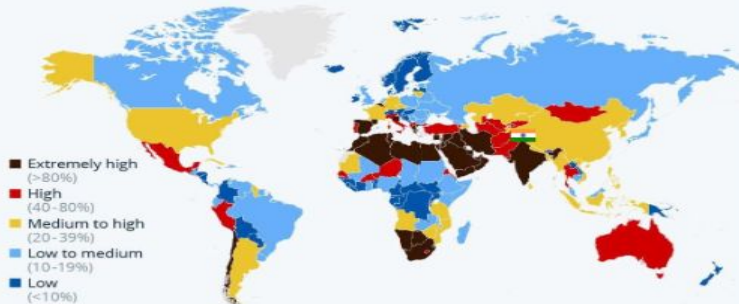


Source: Central Water Commission

Some recent data on Water Security in India

Where Water Stress Will Be Highest by 2050

Projected ratio of human water demand to water availability (water stress level) in 2050*



* According to "business as usual" scenario = middle-of-the-road future where temperatures increase by 2.8°C to 4.6°C by 2100
Source: World Resources Institute

River basins under water stress: 11/15

People facing high-to-extreme water stress: ~60 cr

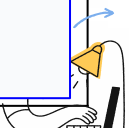
Basins below scarcity threshold (1,000 m³/ person/ year; Falkenmark Index): Krishna, Cauvery, Mahi, Tapi

Reservoir loss: 13 major fell below 50% capacity

OTHERS:

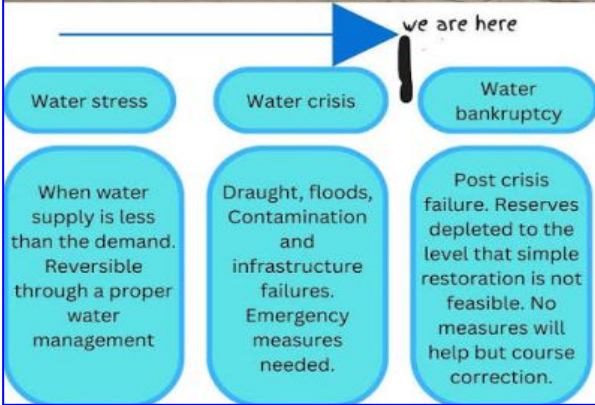
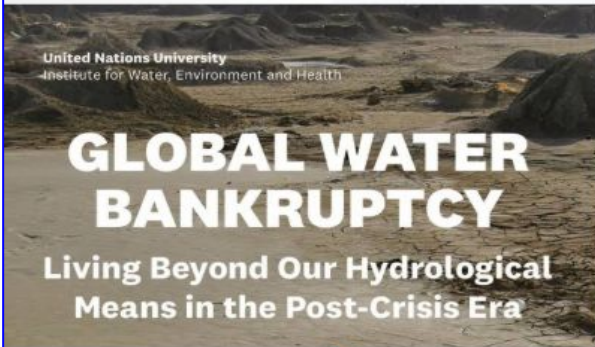
- **World Bank, 2024:** 1 in 4 lack drinking water access
- **Groundwater assessment units "over-exploited": 10.8%**
- **40% rain deficit**

In Rajokri Harijan Basti, southwest Delhi — barely 10 km from IGI Airport — residents have devised an **informal roster system** to share water tanker deliveries without conflict, sometimes waiting **2-3 days** for their turn.



CONTEXT: Article on [India's Water Security Crisis](#)

What "Water Bankruptcy" Actually Means



'The Reality of Hydrological Insolvency'

From Crisis to Bankruptcy
Bankruptcy is a chronic, irreversible state where water 'liabilities' consistently exceed natural 'assets.'

An Overdrawn 'Savings Account'
India's groundwater—the nation's primary hydrological reserve—is being extracted faster than it can recharge.

75% of Humanity is Water-Insecure
Three-quarters of the global population now lives in water-insecure or critically insecure regions.

GLOBAL IMPACT SNAPSHOT

- 4 BILLION** people facing severe scarcity (at least one month/year)
- Declining Aquifers** (of global cases show long-term depletion)
- Loss of Lake Volume** (of large lakes have shrunk since the 1990s)

The Governance Angle

Why Water Stress Is Not Just an Environment Topic

WATER LAWS AND BATTLES

- **No national (unified) law** | Many countries like Israel, South Africa and Australia have national water laws
- **Primarily, water is a 'State' subject in India** | States free to deal with issues of water supply, irrigation and canals, and drainage embankments in their own way
- Centre can only regulate, develop inter-state rivers
- Absence of concrete regulatory regime leads to mismanagement of water resources
- Centre, however, assists states in conservation, river cleaning, building infra
- Centre can also deal with issue under Environment (Protection) Act, 1986 and Water (Prevention and Control of Pollution) Act, 1974

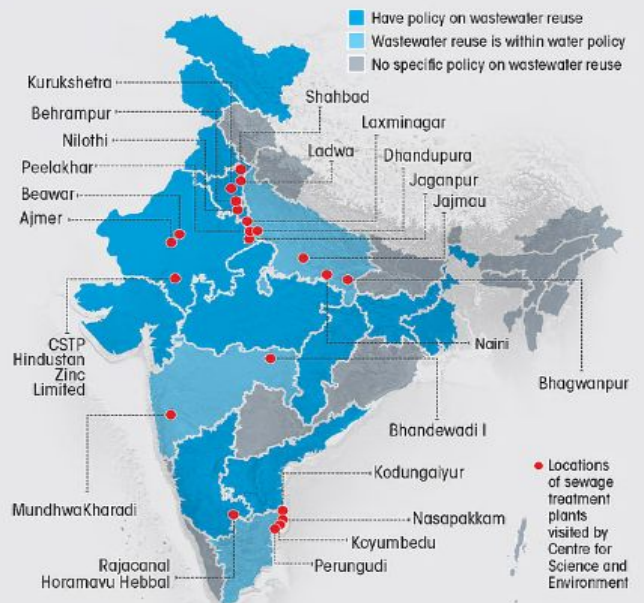
Five tribunals are hearing river water disputes



For Cauvery, a tribunal has issued a final award and Centre has set up a panel for release of water as per orders. However, the two states still have differences on several counts

Policy status

States with and without policy on wastewater reuse



Source: "Waste to Worth: Managing India's Urban Water Crisis Through Wastewater Reuse", Centre for Science and Environment

CONTEXT: Article on [India's Water Security Crisis](#)

Institutional Architecture

Ministry of Jal Shakti (2019)

Jal Jeevan Mission (2019)

Atal Bhujal Yojana

PMKSY

Namami Gange Mission II
(2024-26)

Mihir Shah Committee
(2016)

A Step Towards Groundwater Conservation



INFRA FOR GROWTH

#MODI20

- The Cabinet announced Atal Bhujal Yojana, an ambitious Rs 6000 crore scheme to accelerate the conservation of groundwater
- It includes water security plans by the Gram Panchayat, monitoring committees and setting up of Water Panchayat to deliberate on the distribution of water
- Gujarat, Haryana, Karnataka, Madhya Pradesh, Maharashtra, Rajasthan and Uttar Pradesh would benefit from this program for the next five years.
- This comes as a logical successor to the Rs 3.5 lakh crore Jal Jeevan Mission to ensure every drop of water is conserved and used judiciously

UPSC PYQ (P) 2021

Which one of the following ancient towns is well known for its elaborate system of water harvesting and management by building a series of dams and channelizing water into connected reservoirs?

- (a) Dholavira
- (b) Kalibangan
- (c) Rakhigarhi
- (d) Ropar



UPSC PYQ (P) 2021

With reference to 'Water Credit', consider the following statements:

1. It puts microfinance tools to work in the water and sanitation sector.
2. It is a global initiative launched under the aegis of the World Health Organization and the World Bank.
3. It aims to enable the poor people to meet their water needs without depending on subsidies.

Which of the statements given above are correct?

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



CONTEXT: Article on [India's Water Security Crisis](#)

Actionable four-point framework

1. Climate-Proof Water Infrastructure Through Risk Assessment

- **Urban Challenge Fund @Visakhapatnam**
- Coastal/low-lying areas => critical infrastructure

2. Circular Water Economy

- **Thane Municipal Corporation = 53 million litres/day**
- **CEEW: ₹3 lakh crore and create 1 lakh jobs by 2047**

3. Scale Micro-Irrigation

- **MSP**
- **Redesign subsidies @0.4 hectares**
- **Crop diversification**
- **Strengthen PMFBY**

4. Close Data Gap

- **Smart bulk water meters**

Four-Part Fix

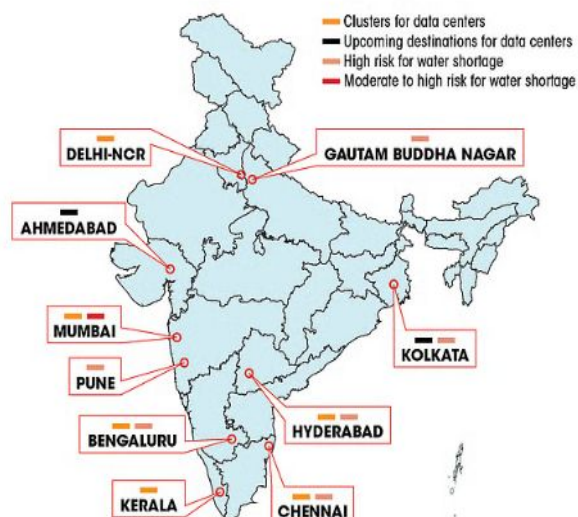
Mains Practise Question

India's water crisis is less a story about scarcity of water and more a story about scarcity of accountable data and institutional coordination.

Comment.

(15 Marks, 250 words)

THE GEOGRAPHY OF INDIA'S DATA CENTERS AND THE WATER RISKS BENEATH



Newspaper : The Hindu Page Number : 1, 2

Centre opens power bids to four China-linked firms

The Finance Ministry says the exemption is valid for two years and should not be treated as a precedent; decision follows a request from the Power Ministry and inter-ministerial consultations

The Hindu

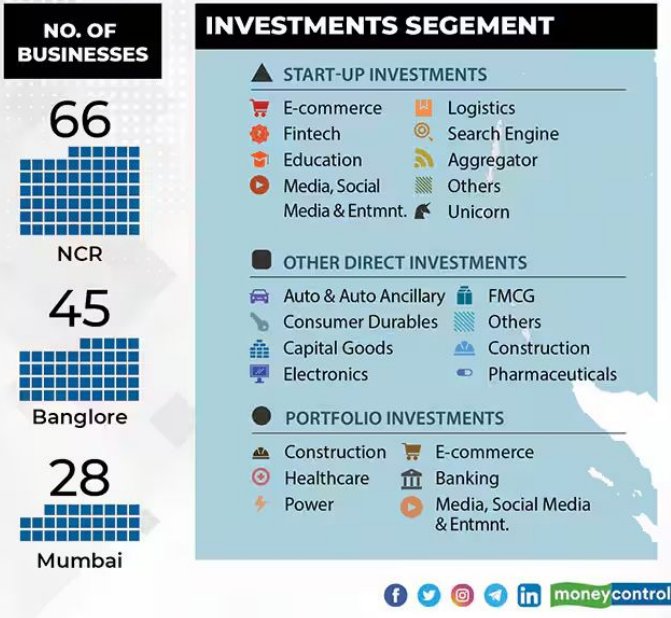
Finance Ministry notifies FDI easing for foreign firms with up to 10% Chinese stake under FEMA

The Finance Ministry has notified a decision to allow overseas companies with Chinese shareholding of up to 10% to invest in India under the...

2 May 2026

- On **Geo-Economic Realism**
- On **Strategic Policy Flexibility**
- On **Infrastructure Supply Chain Dependencies**

INVESTMENT ATTRACTION FOR CHINESE COMPANIES



Delhi govt. announces ₹8,300-crore clean air plan

- **NCAP** implementation
- **65%** World Bank funding
- **Integrating modern solutions**
 - Low-Emission Zones
 - Recycled Aggregate Manufacturing Systems
 - EV acceleration
 - Urban green sinks.

LITTLE KNOWN BYRNIHAT WORLD'S MOST POLLUTED

10 most polluted countries		20 most polluted cities in the world	
Country		Byrnihat, Meghalaya, India	Sialkot, Pakistan
Chad	91.8	Delhi, India	Gurugram, Haryana, India
Bangladesh	78.0	Karaganda, Kazakhstan	Ganganagar, Rajasthan, India
Pakistan	73.7	Mullanpur, Punjab, India	India
D R Congo	58.2	Lahore, Pakistan	Hotan, China
India	50.6	Faridabad, Haryana, India	Greater Noida, UP, India
Tajikistan	46.3	N'Djamena, Chad	Bhiwadi, Rajasthan, India
Nepal	42.8	Loni, Uttar Pradesh, India	Muzaffarnagar, UP, India
Uganda	41.0	New Delhi, India	Hanumangarh, Rajasthan, India
Rwanda	40.8	Multan, Pakistan	India
Burundi	40.3	Peshawar, Pakistan	Noida, UP, India

*Annual average PM2.5 concentration in micrograms per cubic meter (µg/m3)

WHO annual PM2.5 guideline	Indian national ambient air quality standards (NAAQS) for PM2.5
5.0 µg/m3	40 µg/m3

Key findings from the 2024 World Air Quality Report

- Only 17% of global cities meet WHO air pollution guidelines
- A total of 126 (91.3%) out of 138 countries and regions exceeded WHO's annual PM2.5 guideline value of 5 µg/m3
- Mayaguez, Puerto Rico was the cleanest metropolitan area of 2024, with an annual average PM2.5 concentration of 1.1 µg/m3
- Oceania is the world's cleanest, with 57% of regional cities meeting WHO PM2.5 annual average



Newspaper : The Hindu **Page Number :** 4,1

El Nino impact: Chhattisgarh govt. advises farmers to go for fast-growing varieties of crops

Direct Seeded Rice

- 'Rice Bowl of India'
- **Saving 20% water** and slashing input costs by **₹5,000 per acre.**

CLIMATE RESILIENT VARIETIES

New crop varieties to fight climate change and malnutrition

Crops	No. of varieties	Specific Traits
Rice	8	Bacterial blight resistant, Salinity tolerance (T), Low soil phosphorus T, Herbicide T
Wheat	6	High yielding with high Zinc, Rich in protein and iron
Maize	3	High provitamin & lysine, Suitable of all zones, Sterile baby corn
Soybean	3	Early maturing, Free from anti-nutritional factor, Amenable to mechanical harvesting
Mustard	2	High yielding, Erucic acid <2%
Pigeon pea	2	Early maturing, Resistant to wilt & sterility, Resistant to mosaic disease
Chickpea	2	Drought Tolerant, High protein (22.9%)
Pearl millet	2	Rich in iron, Resistance to downy mildew
Sorghum	2	Suitable for biofuel, Suitable for silage making
Quinoa	1	High protein & oil content
Buckwheat	1	High protein & iron
Winged bean	1	High pod yield, High protein
Faba bean	1	High seed yield, High protein
Forage sorghum	1	High biomass, Suitable for biofuel

• THE US REMOVED CURBS ON ANTHROPIC'S AI MODELS ON TUESDAY

OpenAI pitched US govt stake model for all AI firms

Top 10 AI Startups By Valuation 2026



- The **Trillion-Dollar AI Tension**
- **Friction:** Government Clamps Down

Proposal: The 5% State Dividend

- **Sovereign/Public Wealth Fund**
- **Alaska Permanent Fund MODEL**
 - State's oil investment wealth
 - Yearly cash dividends directly to residents



What is the Places of Worship Act, 1991?

SYLLABUS : PRELIMS : Provisions of Act
Newspaper : The Hindu Page Number : 12

Places of Worship (Special Provisions) Act, 1991 🏛️

(Special Provisions) Act, 1991

Section-3



Religious places cannot be changed after August 15, 1947. The law states that the religious character of any place of worship must remain as it was on that date.

Section-4(2)



Before August 15, 1947, if any religious place were converted into another form, that conversion would remain valid. The law will not affect such changes that occurred before the specified date.

Ram Janmabhoomi movement under P.V. Narasimha Rao government

Sec 2: "Place of Worship"

• All religious denominations
 "temples, mosques, churches, gurudwaras, monasteries, shrines, or any other public religious site."

Absolute Prohibition of Conversion (Section 3)

Bars the conversion of a place of worship of one religious faith into another.

Freezing of Status & Abatement of Legal Cases (Section 4)

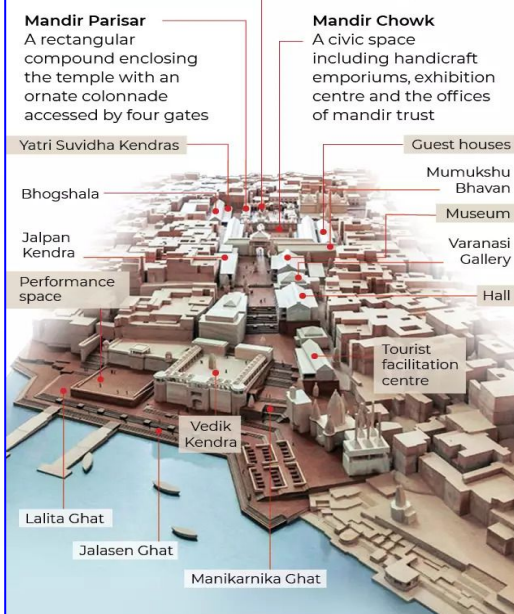
1. **Religious character of a place of worship = as on August 15, 1947.**
2. **Crucial Exemptions**
 - a. Ayodhya Dispute
 - b. Ancient, Historical
 - c. Pre-Settled Disputes
 - d. Mutually Resolved

What happened now?

- **Allahabad High Court dismissed a petition challenging a road-widening project**
- **Petitioners:** 6 Muslim shopkeepers (tenants)
- **Core Legal Question:** Does the Places of Worship (Special Provisions) Act, 1991, act as an absolute shield preventing the State from acquiring religious properties for public infrastructure development?
- **Critical Analysis**
 - Eminent Domain vs. Freedom of Religion
 - Definition of "Secular Purpose"
 - Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act



Shri Kashi Viswanath Temple

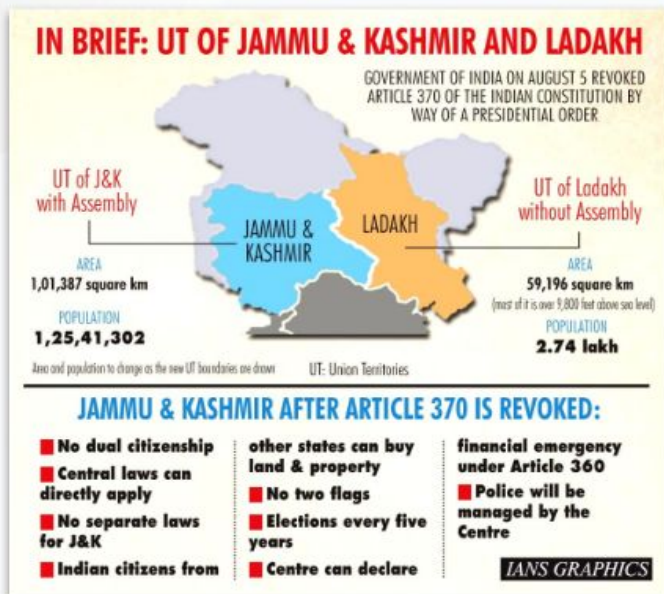


Can Ladakh finally attain statehood?

SYLLABUS : PRELIMS : *Issues relating to Union Territories*
Newspaper : The Hindu **Page Number :** 10

Why is Ladakh Protesting?

Article 370



WHAT ARE THE PROTESTERS DEMANDING?

- Full Statehood for Ladakh**
Protesters say Union Territory (UT) status has reduced Ladakh's autonomy.
- Inclusion in the Sixth Schedule**
This would protect the tribal identity, culture, and land rights of locals.
- Separate Public Service Commission**
To tackle rising unemployment and ensure locals get fair government job access.
- Two Lok Sabha Seats**
Protesters want better representation — one seat is seen as insufficient.

- "Kashmir-centric political governance"
- Ladakh was made a UT without a Legislature

Latest Breakthrough (July 2026 MHA Draft)

Takeaways

- Resisted granting immediate Statehood
- "Customized *sui generis* model under Art 371."
- **Democratic Architecture**
 - UT-level elected body
 - Real executive, financial, and legislative powers
 - Panchayati Raj Institutions
 - **Bureaucratic Accountability** + performance appraisals
- LAHDC Leh + LAHDC Kargil

Creating an Article 371-K?

Key Features of Hybrid Model

- **Domicile rules**
- **Prevent outsiders from purchasing local tribal land**
- **Government employment**
- **Local customs**
- **Cold-desert ecology**
- **Home Ministry = national security, border infrastructure, and law & order**

SYLLABUS : PRELIMS : *Issues relating to Union Territories*
Newspaper : The Hindu **Page Number :** 10

Latest Breakthrough (July 2026 MHA Draft)

Article 371 vs. 6th Schedule

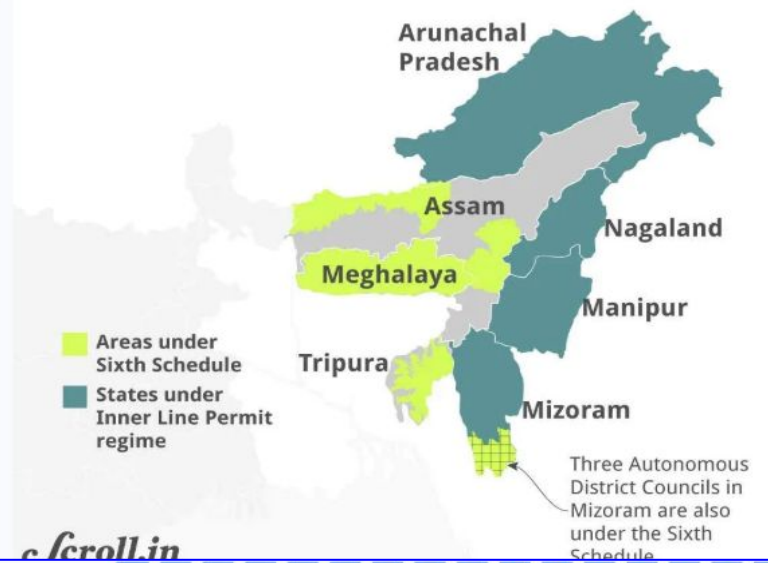
6th Schedule

- ADCs
- *Why the Centre Hesitated?*

Article 371 (A to J)

- **11 states** (e.g., Maharashtra, Gujarat, Nagaland, Assam, Manipur, Andhra Pradesh, Sikkim, Mizoram, Arunachal Pradesh, Goa, Karnataka).
- **“tailored, state-specific protections”**
 - **Article 371A (Nagaland) & 371G (Mizoram)**
 - **Article 371F (Sikkim)**

Regions under the Sixth Schedule and ILP regime in the North East



UPSC PYQ (P) 2019

Under which Schedule of the Constitution of India can the transfer of tribal land to private parties for mining be declared null and void?

- (a) Third Schedule
- (b) Fifth Schedule
- (c) Ninth Schedule
- (d) Twelfth Schedule

UPSC PYQ (P) 2012

Which of the following provisions of the Constitution of India have a bearing on Education?

1. Directive Principles of State Policy
2. Rural and Urban Local Bodies
3. Fifth Schedule
4. Sixth Schedule
5. Seventh Schedule

Select the correct answer using the codes given below:

- (a) 1 and 2 only
- (b) 3, 4 and 5 only
- (c) 1, 2 and 5 only
- (d) 1, 2, 3, 4 and 5



Are combination meds safe?

SYLLABUS : PRELIMS : Antimicrobial Resistance
Newspaper : Indian Express Page Number : Explained

Understanding Fixed-Dose Combinations

Loose Drugs



First-line Anti-TB drugs

From left to right:

- Isoniazid,
- Rifampicin,
- Pyrazinamide and
- Ethambutol

form the core of initial treatment regimens.

Fixed Dose Combination (FDC)



FDCs are improved formulations of currently used medicines, recommended for the first line treatment of TB.

A Fixed-Dose Combination is a **cocktail medicine** that **packs two or more active pharmaceutical ingredients** into a **single delivery form** (such as a single tablet, capsule, or cream tube).

When FDC considered "Rational"?

1. **Pharmacological** Compatibility
2. **Additive** Benefit
3. **Operational** Improvement

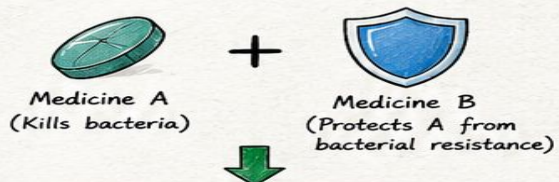
When FDC considered "Rational"?

1. **Lacks verified clinical data**
2. **Unnecessary chemical risks**

More Medicines ≠ Better Medicines

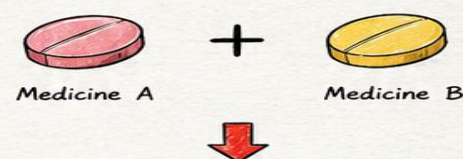
Why India banned 16 Fixed Dose Combination (FDC) drugs

✓ RATIONAL COMBINATION
 Two medicines working together for a clear scientific reason.

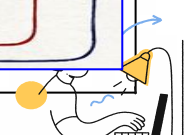


RESULT: 1 + 1 = 3
 Better cure, better outcome, better protection.

✗ IRRATIONAL COMBINATION
 Two medicines mixed together without evidence that they improve treatment.



RESULT: 1 + 1 = 1.1
 Extra medicines → extra risks → no extra benefit.



SYLLABUS : PRELIMS : Antimicrobial Resistance
Newspaper : Indian Express Page Number : Explained

UPSC PYQ (P) 2019

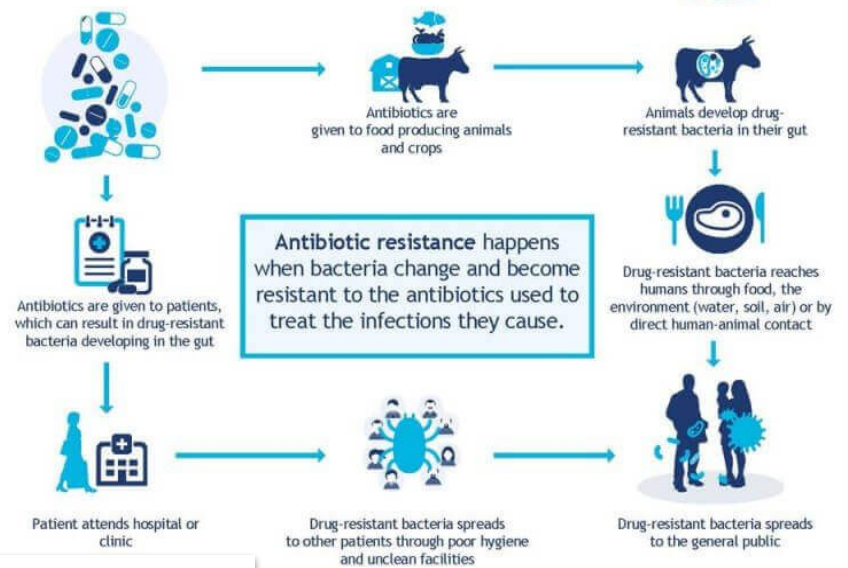
Which of the following are the reasons for the occurrence of multi-drug resistance in microbial pathogens in India?

1. Genetic predisposition of some people
2. Taking incorrect doses of antibiotics to cure diseases
3. Using antibiotics in livestock farming
4. Multiple chronic diseases in some people

Select the correct answer using the code given below.

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

ANTIBIOTIC RESISTANCE HOW IT SPREADS



TNI The New Indian Express

16 fixed-dose combination drugs banned with immediate effect

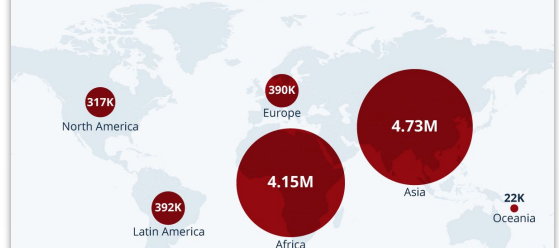
In this regard, the Union Health Ministry issued notifications under Section 26A of the Drugs and Cosmetics Act, 1940, prohibiting the...

2 weeks ago



AMR Could Cause 10 Million Deaths a Year by 2050

Projected annual deaths attributable to antimicrobial resistance by 2050, by region

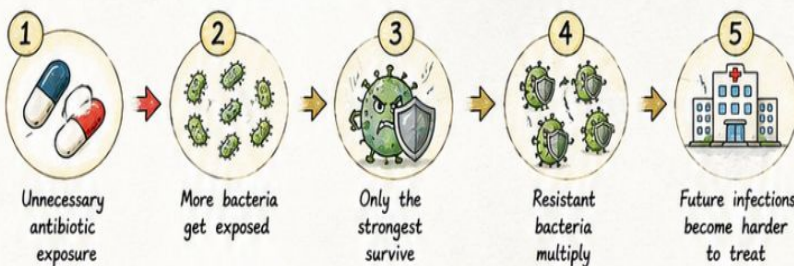


Projections from 2019 based on a scenario where no actions against AMR are taken
 Sources: HM Government, Murray et al. Global burden of bacterial antimicrobial resistance. The Lancet (2022), OECD, Wellcome Trust



statista

WHY IRRATIONAL ANTIBIOTIC COMBINATIONS MAKE THIS WORSE



More drugs used without need → More resistance created → More lives at risk

EXAMPLE 1: BACTERIAL DIARRHOEA



Are combination meds safe?

SYLLABUS: PRELIMS: Antimicrobial Resistance
Newspaper: Indian Express Page Number: Explained

EXAMPLE 2: WHEN ONE ANTIBIOTIC ALREADY WORKS

If bacteria already surrender to Medicine A... → ...Adding Medicine B changes nothing. → But it still increases:

- Side effects
- Cost
- Resistance risk

THE CENTRAL STORY

Fungal infection on the skin → Patient applies: → Initially:

- ✓ Redness decreases
- ✓ Itching decreases
- ✓ Patient feels better

The steroid may hide symptoms while allowing fungus to spread. → But underneath... Fungus continues growing.

The Stakeholder Action Plan

- For Patients
- For Clinicians
- For Pharmacists
- "Vitamins & Probiotics"

Government Issues Ban on the Following Drug Combinations

- Nimesulide + Paracetamol dispersible tablets
 - Chlorpheniramine Maleate + Codeine Syrup
 - Pholcodine + Promethazine
 - Amoxicillin + Bromhexine
 - Bromhexine + Dextromethorphan + Ammonium Chloride + Menthol
 - Paracetamol + Bromhexine + Phenylephrine + Chlorpheniramine + Guaiphenesin
 - Salbutamol + Bromhexine.
- © www.medindia.net



How to revive India's tiger reserves?



SYLLABUS : PRELIMS : Tiger Conservation
Newspaper : Indian Express Page Number : Explained

Prelims Pointers on Tigers

There are **only two** tiger subspecies. **Bengal tigers** represent over **70%** of the **world's wild tigers**.

Sundarbans tigers are a **unique 'eco-type'** that has **adapted to a semi-aquatic life**, often weighing **50%** less than their forest cousins.

A tiger can **launch its entire body** over a distance of **33 feet (10m)** in a single bound.

A **tiger's night vision** is **six times more powerful** than a human's.

Every tiger carries a **unique pattern of stripes** on its skin, serving as **fingerprints**.

A **tiger's roar** contains **low-frequency infrasound** that can **physically paralyze** prey with fear from up to **two miles** away.

Tiger saliva contains **natural antiseptic** properties, allowing them to **heal their own wounds**.

Find more at www.wildlifedomads.com

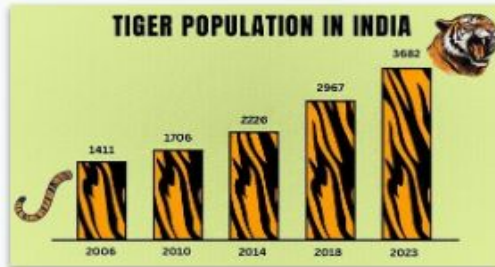
Quick-Revision Box

Project Tiger
 1973
 Centrally Sponsored Scheme.

National Tiger Conservation Authority

Tiger Census
M-STripES
 NTCA + WII

3 Reserves with Zero Tigers:
 1. Kawal
 2. Kamlang
 3. Dampa



The Mathematical Paradox

The Indian Express

Government flags priority intervention need in 25 of 58 tiger reserves with low, absent tigers

Report cites 13 reserves where big cat density, prey base are in good condition.

5 days ago



Union Minister Bhupender Yadav congratulates on completion of 18 years of tiger reintroduction in Sariska Tiger Reserve | Akashvani News

Population rose from 1,411 in 2006 to 3,682 in 2022

≈ 85,000 sq km.

Just 10 to 12 reserves house roughly 36% of the entire tiger popln.

12 tiger reserves have fewer than three tigers inside

Foundational Ecological Concepts

- A. **Source vs. Sink Populations**
- B. **Metapopulation Dynamics**
- C. **Carrying Capacity & Edge Effects**



How to revive India's tiger reserves?



SYLLABUS : PRELIMS : Tiger Conservation
Newspaper : Indian Express Page Number : Explained

The 25 Priority Reserves Index

Objective assessment index

Identified via **NTCA + WII**

3 criteria

- Prey Availability
- Habitat Quality
- Tiger Occupancy

A MIXED RECORD

- Sariska, which had previously lost all its tigers, was the first to undertake reintroduction in 2008. Panna in MP followed suit in 2009 — 10 more reserves have done so since then.
- The Centre acknowledged failure in Odisha's Satkosia owing to rejection by local communities, besides slow and lethargic progress in Rajasthan's Mukundara Hills.

Transitioning from
Sources to Sinks

Co-Community Wildlife
Management

Linear Infrastructure
Mitigation

UPSC PYQ (P) 2012

Consider the following protected areas:

1. Bandipur
2. Bhitarkanika
3. Manas
4. Sunderbans

Which of the above are declared Tiger Reserves?

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

UPSC PYQ (P) 2020

Among the following Tiger Reserves, which one has the largest area under "Critical Tiger Habitat"?

- (a) Corbett
- (b) Ranthambore
- (c) Nagarjunasagar-Srisaillam
- (d) Sundarbans



Q1. With reference to the Bengal Tiger, consider the following statements

1. Bengal tigers constitute more than 70% of the world's wild tiger population.
2. Sundarbans tigers are an ecotype adapted to semi-aquatic conditions and generally weigh less than their forest counterparts.
3. Every tiger possesses a unique stripe pattern that can be used for individual identification.

Which of the above given statements is/are correct?

- a) 1 only
- b) 2 and 3 only
- c) 1 and 2 only
- d) All of the above

Answer: d

Q2. Which of the following statements regarding antimicrobial resistance (AMR) is Not correct?

- a) The use of antibiotics in livestock can contribute to the development and spread of drug-resistant bacteria.
- b) Drug-resistant bacteria can spread to humans through food, water, soil, air, and direct human-animal contact.
- c) Poor hygiene practices and inadequate infection control can accelerate the transmission of antimicrobial resistance.
- d) Antimicrobial resistance occurs when the human body becomes resistant to antibiotics rather than the microorganisms causing the infection.

Answer : d

Q3. With reference to the Places of Worship (Special Provisions) Act, 1991, consider the following statements:

1. The Act mandates that the religious character of a place of worship shall remain the same as it existed on 15 August 1947.
2. The Act invalidates all religious conversions of places of worship that occurred before 15 August 1947.

Which of the statements given above is/are correct?

- a) 1 Only
- b) 2 Only
- c) Both 1 and 2
- d) Neither 1 nor 2

Answer: c

Q4. With reference to the Sixth Schedule areas and the Inner Line Permit (ILP) regime in North-East India, consider the following statements

1. All tribal areas of Meghalaya are administered under the Sixth Schedule of the Constitution.
2. Mizoram has Autonomous District Councils under the Sixth Schedule.
3. Nagaland and Arunachal Pradesh are covered under the ILP regime.

Which of the statements given above is/are correct?

- a) 1 only
- b) 2 and 3 only
- c) 1 and 2 only
- d) All of the above

Answer: d

Q5. With reference to water stress in India, consider the following statements:

1. According to the Falkenmark Index, a region is considered water-scarce if annual per capita water availability falls below 1,000 cubic metres.
2. The Falkenmark Index measures water stress solely on the basis of groundwater availability.
3. River basins such as the Krishna, Cauvery, Mahi, and Tapi have been reported to be below the water scarcity threshold.

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

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

Answer: b





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