

# The Analyst

# **CURRENT AFFAIRS Handout**

**08th May 2025** 



# **Operation Sindoor**



<u>CONTEXT</u>: Understanding <u>Operation Sindoor</u> and <u>India's Military Operations Against Pakistan.</u>

#### What is Operation Sindoor?

Understanding
Operation
Sindoor and
India's Military
Operation

Objective against terrorist infrastructure

**Trigger:** April 22, 2025 Pahalgam attack

Air, naval, and land-based precision strikes for the Isttime

| Aspect | Past Ops (2016–2019)                    | Operation Sindoor (2025)                                 |
|--------|---|--|
| Scope  | Single location (e.g.,<br>Balakot camp) | 9 sites across Pakistan/PoK                              |
| Tech   | Limited precision strikes               | Al-driven intel + 24 missile/<br>Kamikaze drones strikes |
| Obj've | Retaliation                             | Degrade terror logistics &<br>leadership                 |
| Risk   | Avoided deep strikes                    | Struck deep inside Pakistan                              |



#### Weapons & Tactics: Tech-Driven Assault

**HAMMER:** The Highly Agile and Manoeuvrable Munition Extended Range (HAMMER) air-to-ground precision-guided weapon system for the Rafale fighter aircraft has a range of up to 70 km, and can also be fitted to bombs and various guided systems.

Built by the French aerospace, defence, and security corporation Safran, the HAMMER weapon system is highly versatile, and can be used for precision strikes against a range of targets in medium-range tactical operations.

According to the Safran Group, the system is autonomous and insensitive to jamming, and can be launched from a low altitude over rough terrain.

**METEOR:** The Meteor is a new-generation Beyond Visual Range Air-to-Air Missile (BVRAAM) system which is effective in dense electronic-warfare environments.

According to its manufacturer MBDA, the missile's solid-fuel 'ramjet' motor provides it with thrust all the way to the target intercept, and thus the largest 'No Escape Zone' of any air-to-air missile system.

**BRAHMOS:** These supersonic cruise missiles, which have been operationalised in all three defence services, are built by BrahMos Aerospace, a joint venture between India's Defence Research and Development Organisation (DRDO) and Russia's NPO Mashinostroyeniya.

BrahMos missiles operate at close to Mach 3 speed in the cruise phase, which en-

sures reduced flight time, lower dispersion of targets, and quicker engagement time and non-interception.

The missile operates on a 'Fire and Forget Principle', adopting varieties of flights on its way to the target. As per its website, cruising altitude could be up to 15 km and terminal altitude as low as 10 metres. The missile carries a conventional warhead weighing 200-300 kg.

The range of some BrahMos missiles for land and ship attacks have been nearly doubled in recent years.

**LOITERING MUNITIONS:** They are used for surveillance and identification of targets, and can carry out precision strikes, autonomously or otherwise. The Armed Forces in the last few years have been procuring a range of drones, including loitering munitions.



# **Operation Sindoor**



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**SCALP:** This is an air-launched cruise missile with stealth features, designed for longrange deep strikes. SCALP-EG (*Système de Croisière Autonome à Longue Portée — Emploi Général*), known as Storm Shadow in Britain, can be operated at night and in all weather

The missile, manufactured by the European multinational MBDA, has a range of 450 km, and is difficult to detect due to its low-flying capability when fired from an aircraft.

Its advanced and highly accurate navigation system, which uses Inertial Navigation System (INS), Global Positioning System

#### **Platforms Used:**

- IAF Rafales (SCALP/HAMMER)
- Sukhoi-30MKIs (Air cover + electronic warfare)
- Naval Surveillance

#### <u>India's Key Military Operations Against</u> <u>Pakistan</u>

#### A. 1965 War

- Operation Riddle:
  - Goal: Counter Pakistan's
     Operation Gibraltar (infiltration in J&K).
  - Action: India attacked Lahore and Kasur (Sept 1965).
  - Outcome: Pakistan's offensive crippled; led to the Tashkent Agreement.
- Operation Ablaze:
  - Pre-emptive mobilization before the 1965 war.

#### **B. 1971 War**

- Operation Cactus Lily:
  - Meghna Heli Bridge: IAF airlifted troops to Dhaka, bypassing Pakistani defenses.
  - Result: Accelerated
     Bangladesh's liberation.
- Operation Trident & Python (Navy):
  - Target: Karachi's port (Pakistan's economic hub).
  - First Use of Anti-Ship Missiles in the region.

# C. 1984: Operation Meghdoot (Siachen Glacier)

- Why? Pakistan allowed foreign expeditions to claim Siachen.
- Action: India preemptively occupied key heights.
- **Legacy:** India controls **Siachen Glacier** to this day.

# D. 1999 Kargil War: Operations Vijay & Safed Sagar

- Operation Vijay (Army):
  - Recaptured peaks like **Tiger Hill** from Pakistani intruders.
  - Key Figure: Capt. Vikram Batra ("Yeh dil maange more!").
- Operation Safed Sagar (IAF):
  - First high-altitude airstrikes since 1971.
  - Used Mirage-2000s for precision bombing.

#### E. 2016 Surgical Strikes (Unnamed)

- Trigger: Uri attack (19 soldiers killed).
- Action: Para-SF crossed LoC, destroyed terror launch pads.
- Impact: Introduced "proactive retaliation" doctrine.

# F. 2019: Operation Bandar (Balakot Airstrike)

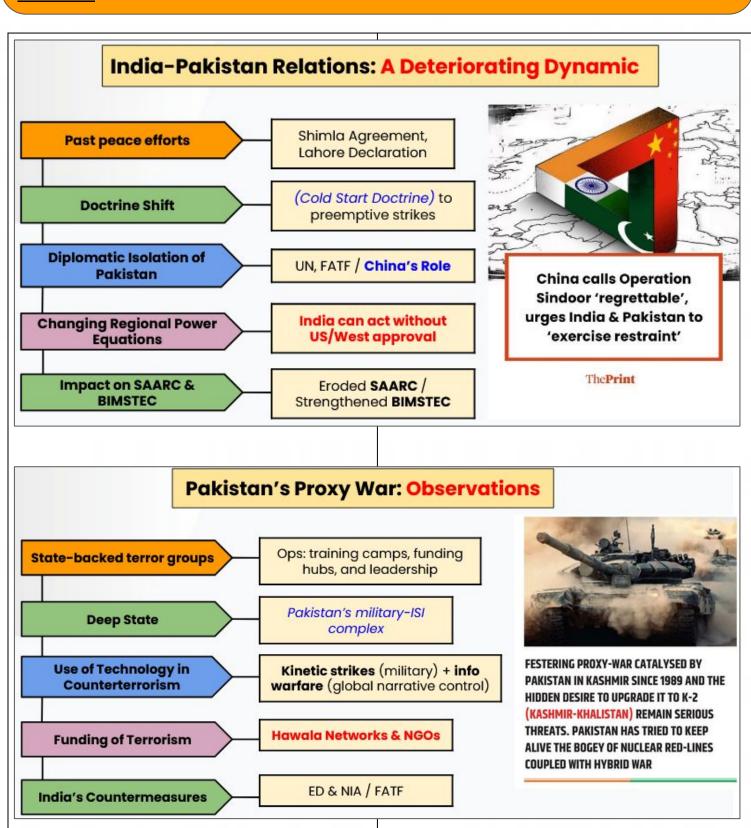
- Trigger: Pulwama attack
- Action: IAF bombed
   Jaish-e-Mohammed camp in
   Balakot.
- **Significance:** First air strike **inside Pakistan since 1971**.



# **Operation Sindoor**



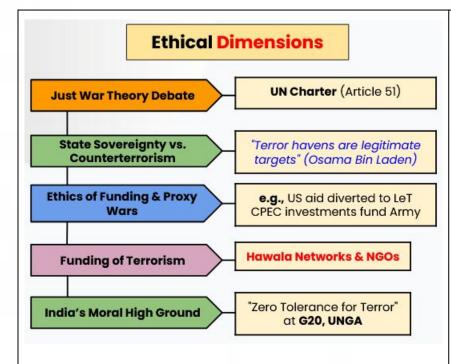
<u>CONTEXT</u>: Understanding <u>Operation Sindoor</u> and <u>India's Military Operations Against Pakistan.</u>



# **Operation Sindoor**



<u>CONTEXT</u>: Understanding <u>Operation Sindoor</u> and <u>India's Military Operations Against</u> <u>Pakistan</u>.



# **Just War Criteria**

# Jus ad bellum (when it is right to go to war) ✓ Last Resort – all other methods must tried first ✓ Right intention - the intention of war is to right a wrong ✓ Just Cause - there must a good reason for going to war ✓ Right authority – only public authorities are legitimate, terrorist organisations are not

- Comparative justice the suffering caused must be less than the suffering that exists
- Probability of success there is no point in fighting and wasting lives if you're not going to win

#### Jus in bello

(how a war should be fought

- Discrimination acts of war should be directed at the combatants not civilians
- Minimum force death and destruction should be limited
- Proportionality the force used must be proportional to the wrong endured and to the possible good that may come

#### **UPSC PYQ (M) 2018**

What is "Terminal High Altitude Area
Defence (THAAD)", sometimes seen in the

#### news?

- a) An Israeli Radar System
- b) India's indigenous anti-missile programme
- c) An American anti-missile system
- d) A defence collaboration between Japan and South Korea

#### **UPSC PYQ (P) 2024**

Operations undertaken by the Army towards upliftment of the local population in remote areas to include addressing of their basic needs is called:

- a) Operation Sankalp
- b) Operation Maitri
- c) Operation Sadbhavana
- d) Operation Madad

#### **Mains Practise Question**

Operation Sindoor represents a paradigm shift in India's security strategy. Discuss its implications for India-Pakistan relations, counterterrorism, and ethical dimensions of international strikes. (15 Marks, 250 words)



# **Operation Sindoor**



**CONTEXT:** Understanding **Operation Sindoor** and **India's Military Operations Against** <u>Pakistan.</u>

#### **KASHMIR**

# Territorial claims

India, Pakistan and China each claim parts of Kashmir.

#### ADMINISTERED REGIONS





#### C CLAIMED BY PAKISTAN













# India-US Energy Future



**CONTEXT:** U.S. Vice President J.D. Vance signaled <u>enhanced strategic cooperation with India in energy</u> and defense.

India and the U.S. are deepening their partnership in energy security & technology wrt:

- Critical Minerals
- Nuclear Energy

#### Strategic Synergies: Why This Matters Energy India = reliable tech and materials; Transition U.S. companies = access to a large energy market. Supply Chain Reduce dependence on China Security Strategic Deepens India-U.S. alignment in the **Partnership** Indo-Pacific **Green Tech** Positions both as leaders in low-carbon Leadership technologies and climate diplomacy.



# 1. Critical Minerals: The Hidden Foundation

Why Do They Matter?

India-U.S. Collaboration: Key Steps

**2024 MoU**: Diversify supply chains from China.

#### Three Guiding Principles:

- Cross-Sector Approach
- Global Partnerships
- Long-Term Vision (Mines take 12–16 years to develop—plan for 20+ years)

#### UKRAINE

#### Ukraine's critical minerals

Ukraine has deposits of 22 of the 34 minerals identified by the European Union as critical.





# India-US Energy Future



**CONTEXT:** U.S. Vice President J.D. Vance signaled <u>enhanced strategic cooperation with</u> India in energy and defense.

#### **Nuclear Energy: The Next Frontier** 2.

#### India's Ambitious Goals

- Target: 100 GW nuclear capacity by 2047 (8 GW today).
- Net-Zero by 2070 may require 200+ GW nuclear power.

#### Challenges

- ▲ Slow Deployment: Current reactors take 9+ years to build.
- A Funding Gap: Needs \$180 billion by 2047—requires private

#### investment.

▲ Liability Law: India's 2010 Nuclear Damage Act deters

private players.

#### INDIA PLANNING HUGE INCREASE IN NUCLEAR POWER

India is making nuclear power one of its key policy initiatives, with plans to build 48 new reactors and boost output to 63,000 megawatts by 2032- an almost 14-fold increase on current levels. The country's



#### Proposals for India-US Energy future

#### **Critical Minerals**

- A Mineral Exchange platform (real-time) trade, investment, blockchain traceability).
- A Critical Minerals Consortium to co-invest globally (Africa, South America, Southeast Asia).
- Use of Quad grouping (India, U.S., Japan, Australia) as a multiplier.

#### **Nuclear Energy**

- Small Modular Reactors
- Policy Reforms
  - Faster approvals, standardized designs.
  - Fix liability law to attract private capital.

#### New Applications

- Use nuclear for green steel
- Powering AI data centers

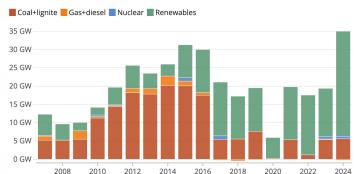
#### **Mains Practise Question**

"A resilient energy future needs a long-term vision, not just short-term wins." Discuss in India's context.

(15 Marks, 250 words)

#### India registers record capacity additions in 2024

Annual net additions of power capacity in India, in gigawatts (GW)



Source: Global Integrated Power Tracker (coal, oil+gas net additions), Central Electricity Authority (renewables + nuclear net additions) • "Renewables" for the purposes of this briefing follows the definition of Energy Monitor (renewables + nuclear net additions) \* renewables for the purposes of this arrows and bioenergy.

of the Central Electricity Authority to include solar, wind, large and small-scale hydropower, and bioenergy.



# **River Cleanup Proposal**

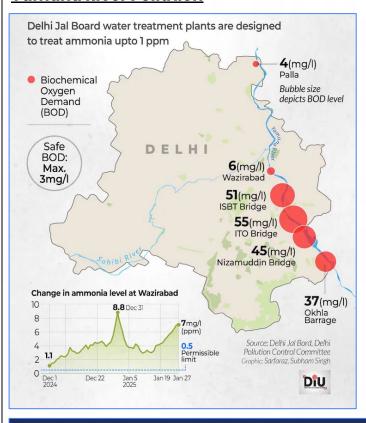


**SYLLABUS:** GS Paper 3: Environmental pollution and degradation

Prelims: General issues on Environmental ecology, Bio-diversity & climate change

Newspaper: The Indian Express, Page No: 5

#### **Yamuna River Pollution**

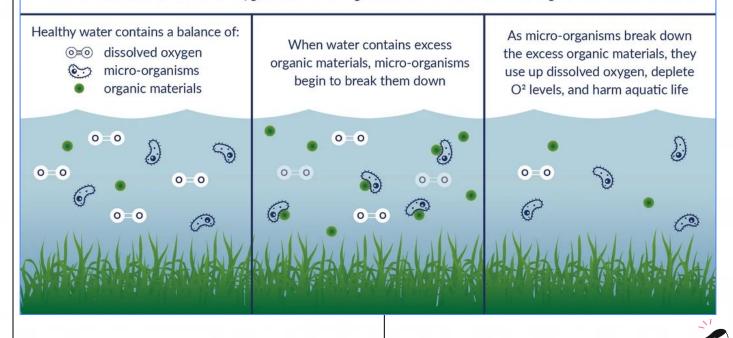


#### **Current Problems:**

- X Untreated sewage from slums/villages
- X Open defecation & unhygienic conditions
- X Delhi's STPs can't handle all sewage (792 MGD generated vs. 712 MGD treated).

# WHAT IS BIOCHEMICAL OXYGEN DEMAND (BOD)?

BOD: the amount of dissolved oxygen that microorganisms need to break down organic materials in water



# **River Cleanup Proposal**



**SYLLABUS:** GS Paper 3: Environmental pollution and degradation

Prelims: General issues on Environmental ecology, Bio-diversity & climate change

Newspaper: The Indian Express, Page No: 5

| Project Highlights        |  |  |
|---------------------------|--|--|
| 👨 Cost                    | ₹3,104.57 crore  |  |
| Funding<br>Scheme         | AMRUT 2.0 (Atal Mission for Rejuvenation and Urban Transformation)               |  |
| Timeline                  | 3-month planning + 18-month execution (excluding monsoon delays)                 |  |
| <u>≙</u> Coverage         | 416 unauthorised colonies + 115 villages = ~35 lakh residents                    |  |
| Infrastructure            | 40 DSTPs + extension of sewer lines + 10<br>MGD STP at Delhi Gate Phase-III      |  |
| // Execution<br>Oversight | Project Management Consultant (PMC) +<br>dedicated Project Management Unit (PMU) |  |

|  | 2.0 |
|--|-----|
|  |     |
|  |     |

Total incentive allocation: ₹2.77 lakh cr

Will target universal coverage of water supply statutory towns

Provide household tap connections in all 4,378

100% coverage of household sewerage/ septage mgmt in 500 AMRUT cities

scheme. It proposes a threemonth planning period followed by 18 months of execution, excluding monsoon delays. For 2025-26, an amount of Rs 613.4 crore has been earmarked.

#### Benefit

#### Impact

Yamuna Rejuvenation

Major step towards reducing direct discharge of untreated

sewage

d Urban Sanitation Better sewerage = improved hygiene, reduced vector-borne

diseases

nclusive Urbanisation

Addresses long-neglected unauthorised colonies and

villages

Decentralised Model

Reduces load on trunk infrastructure, improves treatment efficiency



# New Skilling Initiatives by Cabinet



**SYLLABUS:** GS Paper 3: Inclusive growth and issues arising from it

Prelims: Economic & Social Development
Newspaper: The Indian Express, Page No: 12

# © Cabinet Approves Expansion of Five New IITs & ₹60,000 Crore Scheme to Upgrade ITIs

#### **My These Measures?**

- Expanding high-end engineering research
- Bridging the skilled labour gap

#### Aligns with initiatives like:

- National Education Policy 2020
- Skill India Mission
- Make in India
- Viksit Bharat @2047

#### IIT Expansion Plan: Scope & Details

#### 📤 Target IITs:

- IIT Tirupati (Andhra Pradesh)
- IIT Palakkad (Kerala)
- IIT Bhilai (Chhattisgarh)
- IIT Jammu (Jammu & Kashmir)
- IIT Dharwad (Karnataka)

| Component           | Details   |
|---------------------|---|
| ☐ Cost              | ₹11,828.79 crore over 4 years (2025-29)   |
| TE Focus            | Phase B of construction – expanding academic blocks, hostels, labs                                  |
| Faculty             | Creation of 130 new professor-level posts   |
| A Research<br>Parks | One <b>research park</b> at each of the five IITs to promote <b>industry-academia collaboration</b> |
| Student<br>Strength | Will increase by 6,576 students — from<br>current <b>7,111</b> to <b>13,687</b>                     |

# Rational Scheme to Upgrade ITIs Contributor Share Centre ₹30,000 crore States ₹20,000 crore Industry ₹10,000 crore International Co-financing 50% of Central share by World Bank + ADB

| Feature                | Explanation  |
|------------------------|--|
| narget 1               | Upgrade 1,000 Government ITIs in hub-and-spoke model               |
| Industry Alignment     | Curriculum aligned with industry needs and revamped trades         |
| m NSTIs<br>Support     | Capacity expansion of 5 National Skill Training Institutes         |
| Centres of Excellence  | 5 National Centres of<br>Excellence for Skilling will<br>be set up |
| Targeted Beneficiaries | 20 lakh youth to be trained over 5 years                           |
| Sovernance             | Institutes to be government-owned, industry-managed, promoting PPP |



# **Satellite Internet Services**

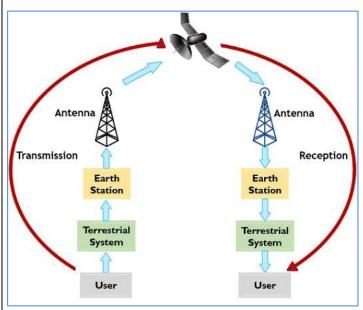


**SYLLABUS: GS Paper 3:** Awareness in the fields of IT

Newspaper: The Indian Express, Page No: 19

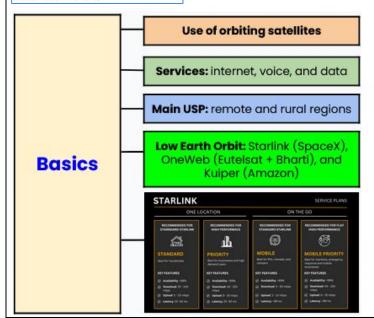
**Prelims:** General Science

#### What is Satellite Communication (Satcom)?



Satellite communication services rely on an array of satellites in orbit to offer connectivity to homes and businesses on the ground. They are an alternative to ground based communication, called terrestrial networks, such as cable, fibre, or digital subscriber line (DSL), and they don't require wires to transmit data. Starlink operates the world's largest satellite constellation, with around 7,000 satellites in orbit.

points: wider coverage, and a more resilient network. Even though the latency of satcom services can at times be higher than terrestrial broadband networks, they can cover vast swathes of areas with very little physical equipment needing to be installed.



# Guidelines — Strategic and **Regulatory Context**

#### **Securing Indian Space**

security conditions for satcom players

For first time, rules notified for satcom mobility services

Rules applicable to all existing and upcoming satcom firms

DoT mandates 29 Firms need to ensure provisioning for NavIC in a time-bound manner

> Websites blocked in India need to be blocked on satellite services too

Network control and monitoring centre has to be located in India



Inter satellite communications links allowed but traffic has to route through Indian gateways only

Satcom firms need to provide real time magaitoring of services

#### Local Manufacturing & Indigenisation

Phased Indigenis ation

Companies must submit a year-wise plan to localise at least 20% of their ground infrastructure (user terminals, gateways) within 5 years.

Ground Segment

Includes antennas, ground stations, and user terminals - critical for domestic value addition and supply chain resilience.

#### Data Localisation & Cyber Sovereignty

No Offshore Routing

Indian user data must not be routed via gateways or PoPs outside India.

No 🌓 Mirroring/Decryp tion Abroad

Companies must not copy or decrypt telecom data outside India.

India-Based Data Centres & DNS

All DNS and storage functions must be conducted within Indian territory.

Monitoring Infrastructure in India

All core monitoring/control systems, including lawful interception facilities, must be based in



# **Satellite Internet Services**



**SYLLABUS: GS Paper 3:** Awareness in the fields of IT

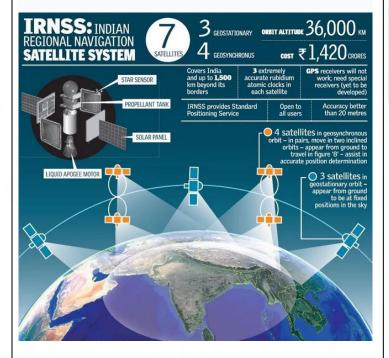
**Prelims:** General Science

Newspaper: The Indian Express, Page No: 19

# © Guidelines — Strategic and Regulatory Context

#### 

boosts India's Atmanirbhar tech base.



#### **UPSC PYQ 2018**

Why is Indian Regional Navigational Satellite System (IRNSS) needed? How does it help in navigation?

#### National Security & Law Enforcement Provisions

| Special Monitoring Zones               | 50 km radius near international borders and coastal EEZ demarcated for real-time user monitoring.                |
|--|--|
| Live<br>Location<br>Sharing            | Service providers must offer real-time geolocation data (lat-long) of user terminals to LEAs when demanded.      |
| Service Restriction During Hostilities | Operators must be able to disable services in specific areas or for specific users during emergencies/conflicts. |
| <b>♀</b> Security Clearance            | Separate clearances required for data and voice services, ensuring compliance with national security norms.      |

#### **UPSC PYQ 2018**

With reference to the Indian Regional Navigation Satellite System (IRNSS), consider the following statements:

- 1. IRNSS has three satellites in geostationary and four satellites in geosynchronous orbits.
- 2. IRNSS covers entire India and about 5500 sq. Km beyond its borders.
- India will have its own satellite navigation system with full global coverage by the middle of 2019.

# Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) None



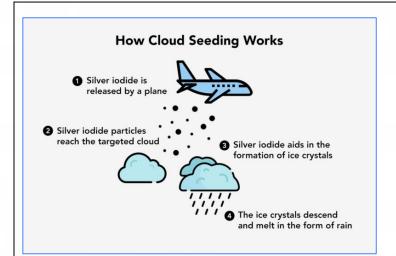
# **Artificial Rain Pilot in Delhi**



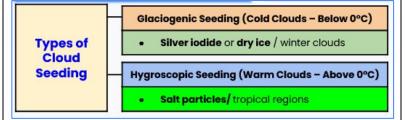
**SYLLABUS:** GS Paper 3: Environmental pollution and degradation

**Prelims:** General Science

Newspaper: The Indian Express, Page No:



| Steps Involved                 |  |
|--------------------------------|--|
| 1. Identify<br>Suitable Clouds | Cumulus (rain-bearing) clouds  |
| 2. Choose<br>Seeding Method    | Aircraft, Drones, or Ground-Based Generators release seeding agents.                 |
| 3. Disperse<br>Seeding Agents  | Common agents: Silver lodide, Potassium lodide, Dry Ice (CO <sub>2</sub> ), or Salt. |
| 4. Nucleation<br>Process       | Particles act as " <b>seeds</b> " for ice crystals or water droplets to form around. |
| 5. Growth &<br>Precipitation   | Droplets merge, become heavy, and fall as <b>rain/snow</b> .                         |



#### Why is Cloud Seeding Needed?

- **Drought Mitigation** in dry regions.
- Agriculture Boost
- ✓ Hail Suppression Reduces crop damage
- Water Reservoir Management Enhances snowfall in mountains to feed rivers.
- Forest Fire Prevention

In a bid to combat air pollution and water scarcity, the Delhi Cabinet on Wednesday approved a project worth ₹3.21 crore to conduct five cloud seeding trials across the Capital.

On Wednesday, Mr. Sirsa said that each trial will cost ₹55 lakh, and ₹2.75 crore had been set aside for five trials. He added that the government will spend ₹46 lakh to cover aircraft calibration, chemical storage, logistics, and other costs involved in the preparations.

ferred to the Indian Institute of Technology, Kanpur, which has been tasked with implementing the project by overseeing aircraft deployment, chemical dispersal, scientific modelling, planning, and operational logistics.

#### **UPSC PYQ 2019**

In the context of which of the following do some scientists suggest the use of cirrus cloud thinning technique and the injection of sulphate aerosol into stratosphere?

- (a) Creating the artificial rains in some regions
- (b) Reducing the frequency and intensity of tropical cyclones
- (c) Reducing the adverse effects of solar wind on the Earth
- (d) Reducing the global warming

# The Analyst Handout

# **Thrissur Pooram**



08th May 2025

**SYLLABUS: GS Paper 1:** Indian culture

**Prelims:** Festivals of India

Newspaper: The Hindu, Page No:7

| Aspect              | Details   |
|---------------------|---|
|                     | Annual <b>Hindu temple festival</b> in <b>Thrissur, Kerala</b>  |
| Timing              | Held in <b>Medam month</b> (April-May)<br>When star Pooram rises  |
| Temples<br>Involved | Ten temples, led by <b>Paramekkavu and Thiruvambady</b>   |
| Signature<br>Events | Elephant parade with golden caparisons<br>(nettipattam), percussion shows (ilanjithara melam),<br>and grand fireworks |
| Founder             | Started by <b>Sakthan Thampuran</b> , Maharaja of Cochin<br>(1790–1805)   |
| Cultural Value      | Called the "Mother of All Poorams", symbolizing Kerala's cultural identity, syncretism, and temple arts tradition     |



| Regulation                        | Explanation  |
|-----------------------------------|--|
| Parade Duration                   | Elephants should not be paraded for more than <b>3 hours</b> at a time — to reduce physical and mental stress. |
| ⊨ Mandatory<br>Rest               | Minimum <b>3-day rest</b> between two public events per elephant — ensures recuperation.                       |
| Norms                             | At least <b>8 meters</b> between elephants in parades — for safety and comfort.                                |
| O Daytime Road Parades Prohibited | Aims to reduce heat stress and traffic risk.   |
| Enforce 2012<br>Rules Strictly    | Existing <b>state rules</b> for elephant welfare to be rigorously implemented.                                 |
| ・ Religious Use Not Compulsory    | Court held that no religion mandates the use of elephants — thus regulation doesn't violate religious freedom. |



#### The Hindu Bureau

As many as 42 people were injured when an elephant went on a rampage during the Thrissur Pooram celebrations in Kerala on Wednesday. The incident occurred around 2.15 a.m. at the Pooram venue where hundreds had gathered to witness the fireworks.

The elephant, Uttoly Ra-

The elephant, Uttoly Raman, suddenly turned aggressive and ran amok through the Swaraj Round. Panic erupted as people scrambled for safety. The elephant squad quickly intervened and managed to



Festive scene: The *kudamattam* ceremony of Thiruvambadi wing during the Pakal Pooram on Wednesday. K.K.NAJEEB

bring the elephant under control.

The injured were rushed to the Thrissur District Hospital. Five people requiring advanced care were shifted to the Government Medical College Hospital. Revenue Minister K. Rajan, who was present at the venue, personally led the rescue operations.

#### **UPSC PYQ 2002**

# Chapchar Kut is a festival celebrated in the state of:

- a) Arunachal Pradesh
- b) Assam
- c) Mizoram
- d) Sikkim



# **Daily Quiz**



# Q1. Match the following Missile systems with their correct descriptions:

| Missile Systems | Descriptions   |
|-----------------|--|
| A. Hammer       | 1. Supersonic Cruise Missile                         |
| B. Meteor       | 2. Air to Ground Precision<br>Guided Weapon          |
| C. Scalp        | 3. Beyond Visual Range Air to<br>Air Missile         |
| D. BrahMos      | 4. Air Launched Cruise Missile with Stealth Features |

# Select the correct match using the codes below.

- a) A-2, B-3, C-4, D-1
- b) A-1, B-2, C-3, D-4
- c) A-4, B-1, C-2, D-3
- d) A-3, B-4, C-1, D-2

#### Answer: a

#### Q2. Regarding India's Net-Zero Emission Targets and Panchamrit plan, consider the following statements:

- India aims to bring its non-fossil energy capacity to 500 GW by 2030.
- India has committed to fulfilling 75% of its energy requirements through renewable sources by 2030.
- 3. India has announced achieving net-zero emissions by 2070 as part of its climate pledge.

# 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

#### **Answer: c**

# Q3. Consider the following statements regarding Satellite Communication:

- 1. Satellite communication provides internet, voice, and data services.
- 2. Unlike terrestrial networks, satellite communication requires extensive underground cabling.

3. Starlink by SpaceX and Kuiper by Amazon are satellite internet constellations operating in Low Earth Orbit.

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

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

#### **Answer: b**

# Q4. Regarding Cloud Seeding, consider the following statements:

- It involves the dispersal of seeding agents like Silver Iodide, Potassium Iodide, Dry Ice, or Salt.
- 2. The process stimulates precipitation by nucleating ice crystals or water droplets.
- 3. It is a form of geoengineering often used in drought-prone areas.

# Which of the statements given above are correct?

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

#### Answer: d

# Q5. Consider the following statements regarding the Thrissur Pooram festival:

- Thrissur Pooram is an annual Hindu temple festival held in Kerala.
- 2. It is celebrated in September–October when the Pooram star rises.

# 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: a





# **VAJIRAM & RAVI**

# Institute for IAS Examination

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