



# NEWSPAPER ANALYSIS

**Date-14th June 2025**

- Operation Rising Lion
- Forest Rights Act 2006
- “Science behind right AC temperature”
- Srimanta Sankaradeva Award-2023

**BY SATYAJIT SIR**  
(IIT Roorkee)





- **You can download PDF version of today's newspaper analysis by clicking the link given in the comment section.**

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# 1. Operation Rising Lion

## Israel's biggest ever attack at the heart of Iran

ARJUN SENGUPTA  
NEW DELHI, JUNE 13

In what is its most ambitious military operation in recent years, Israel launched a series of air strikes against Iran on Friday, targeting nuclear sites, missile facilities and other military infrastructure. The attack killed several of the country's key military and civilian personnel as well.

### Why now?

These strikes came after the International Atomic Energy Agency (IAEA) Board of Governors on Thursday passed a resolution declaring Iran as being non-compliant with its non-proliferation obligations – the first such resolution in two decades. The resolution came on the back of a recent IAEA investigation that found Iran was conducting "secret nuclear activities" at three locations.

Explaining Israel's "pre-emptive strikes", Prime Minister Benjamin Netanyahu said Iran had "taken steps that it has never taken before... to weapons-grade enriched uranium," and "if not stopped, Iran could produce a nuclear weapon in a very short time, perhaps even 'within a few months'."

Israel has always considered a nuclear Iran to be an existential threat, preventing Tehran from developing an atomic weapon has been Netanyahu's signature platform for decades. Notably, this latest development comes while Tehran and Washington are negotiating a deal that would prevent Iran from developing atomic weapons in exchange for sanctions relief.

### What did Israel target?

In its attack on Friday early morning, Israel said to have deployed more than 100 jets around a third of its active fleet – to hit more than 100 targets across Iran, including both strategic infrastructure and key personnel.

**NATANZ NUCLEAR FACILITY:** This is Iran's main uranium enrichment facility, where the country produces most of its nuclear fuel. Located in the central province of Isfahan, the Natanz facility is "the beating heart of the Iranian nuclear programme," analysts say.

Reviewing satellite images taken before and after Friday's attack, The New York Times reported Israeli airstrikes had caused severe damage to the facility, and that "several buildings and critical energy infrastructure either destroyed or heavily damaged". It is still unclear whether these strikes damaged the all-important centrifuge halls, where uranium is enriched, that are buried deep under the Persian desert and protected by metres of reinforced concrete.

The IAEA on Friday afternoon said Israel had not yet struck Iran's other major nuclear enrichment plant at Fordow in the northern province of Qom. This facility, unlike Natanz, is entirely underground, and much harder to hit, according to analysts. One expert told The NYT, "If you don't get Fordow... you haven't eliminated Iran's ability to produce weapons-grade material." On Friday

## N-facility hit, top military brass killed: How Israel struck Iran



(Top) Iran's Supreme Leader Ali Khamenei and Israel PM Benjamin Netanyahu. (Right) A sight after Israel's strike in Tehran, Iran, on Friday. NYT/AP



evening, however, Iranian media reported explosions at Fordow.

**KEY PERSONNEL:** Israeli strikes in Tehran took out the NYT's top military leadership. Among those killed were Maj Gen Mohammad Bagheri, chief of staff of the

those of more than a dozen others, leave a vacuum in Iran's military leadership ahead of what may be a protracted regional conflict. Israel also killed top nuclear scientists, including Farzad Daneshmandi, the former head of Iran's atomic agency, and Mohammad Mehdi Tehrani. This is not the first time Israel has gone after Iranian nuclear scientists. It is, however, the first time that it has done so through conventional military means and not covert operations.

Another significant casualty was a top Iranian general, especially in the light of ongoing Iran-US nuclear talks, was Ali Shamshari, one of Iran's top politicians who was appointed by Khamenei to oversee negotiations with Washington. Shamshari's killing could severely jeopardise the possibility of a deal in the near future.

**MILITARY INFRASTRUCTURE:** Israel also targeted a number of military sites across Iran. These include a nuclear research centre and two military bases in Tabriz in northern Iran, the missile development and production facilities in Isfahan, on the southern edge of Tehran; a missile base in Kermanshah in central Iran; and multiple military bases in and around Tehran.

Note that this is not an exhaustive list, and Israel has maintained that its attack is "ongoing". Friday evening saw a fresh wave of strikes on Tabriz and Tehran.

### What now?

For Iran, this is possibly the gravest threat ever to the Islamic regime. In a letter to the UN Security Council, Iran Foreign Minister Abbas Agha-Salehi said Israel's attack was "a clear violation of international law" and "a direct threat to the very red line," and that it would "deeply regret this reckless aggression".

But as things stand, Israel has painted a rather sorry picture of Iran's military strength, raising serious questions on both its defensive and offensive capabilities. While Iran did send more than 100 drones towards Israel on Friday, there has been no reported casualty or damage thus far. Some analysts say Israeli strikes against Iran's missile facilities may have seriously hurt its ability to strike back.

The big question now is how Tehran will strike back. Put simply, Iran is caught between a rock and a hard place. It can, as it has done in the past, activate its proxies and even launch more drone and missile attacks. But Israeli attacks over the years, and rather muted responses from Tehran, have repeatedly exposed Iran's limitations in this regard.

While Israel claims that the Islamic regime in Iran poses an "existential threat" to the Jewish nation, the opposite might be more true. At the end of the day, Tel Aviv stands with steady support from Washington, which establishes a fundamental asymmetry between itself and Iran on the battlefield.

US President Donald Trump on Friday said Israel's "next already planned attack" could be "even more brutal," and warned that Tehran "must make a deal, before there is nothing left."



Satellite image of the Natanz nuclear facility in Iran in January 2025. AP

## Why strike on Natanz may not cause radiation leak

AMITABH SINHA  
NEW DELHI, JUNE 13

ISRAELI STRIKES on Iran's Natanz nuclear facility, and reports of significant damage to several buildings and infrastructure, have led to fears of a nuclear explosion or radiation leak. But such strikes alone are unlikely to cause a nuclear disaster. Here's why.

### Natanz & what it houses

Natanz, in central Iran, is the country's main uranium enrichment facility. Enrichment is the process through which uranium-235 is separated from naturally occurring uranium (predominantly uranium-238). U-235 is a fissionable material, meaning its nucleus is unstable and susceptible to splitting by a neutron.

The fusion of U-235 results in the production of large amounts of energy and more neutrons, which in turn split more U-235 nuclei, causing a chain reaction. Nuclear weapons require uranium to be enriched to 90% or more, meaning at least 90% of the material has to be U-235. Around 3-5% enriched uranium is all that is required to produce electricity in nuclear power plants.

Among the material stored at Natanz is uranium hexafluoride (UF<sub>6</sub>), a white crystalline solid which is heated to become a gas for the enrichment process. The facility has a number of centrifuges, or enrichment chambers, sensitive nuclear material and equipment, and some stock of enriched uranium (it is unclear how much).

### Nuclear calamity unlikely

Simply hitting nuclear material or equipment with conventional weapons does not lead to a nuclear explosion or a widespread radiation leak, although a more localised dispersion of radioactive

substances cannot be ruled out. "It all depends on the configuration of nuclear material stored at the facility. If the nuclear material and explosives are kept separately, there isn't much danger of an explosion or leak, even if there is indirect hit on the nuclear material," Anil Kalokazi, former head of India's Department of Atomic Energy, told The Indian Express.

The strikes are likely to result in a dispersal of nuclear material into the environment. But this is likely to remain restricted within the facility or the place of the attack," he added. Even if Israel were to have hit assembled nuclear weapons, the result is more likely to be a "radiation leak" than an "uncontained explosion," according to Kalokazi.

### Precise incident needed

A nuclear bomb does not explode when it is dropped or damaged – it remains inactive unless a precise mechanism is initiated to release a neutron in exactly the manner required to trigger a chain reaction. This is because nuclear fission materials are not explosives like TNT or RDX. They become a weapon only because of an uncontrolled release of large amounts of energy under very specific conditions. All nuclear weapons have robust safety mechanisms to prevent accidental detonation.

The Israeli attack on Iran's nuclear facilities, therefore, is unlikely to result in a nuclear explosion or a major radiation leak, but could certainly be a health hazard to people working within the facility and in the localities immediately outside.

Similar fears of a nuclear accident have prevailed in the Russia-Ukraine war as well, particularly when Ukraine's Zaporizhzhia nuclear power plant had got caught in the fighting. The plant did suffer some damage, but even in that case, a major nuclear accident was unlikely.

## Syllabus-

- GS Paper II-International Relations
- Prelims

Source -The Indian Express(Pg 18)



# 1. Operation Rising Lion

## Politics of West Asia

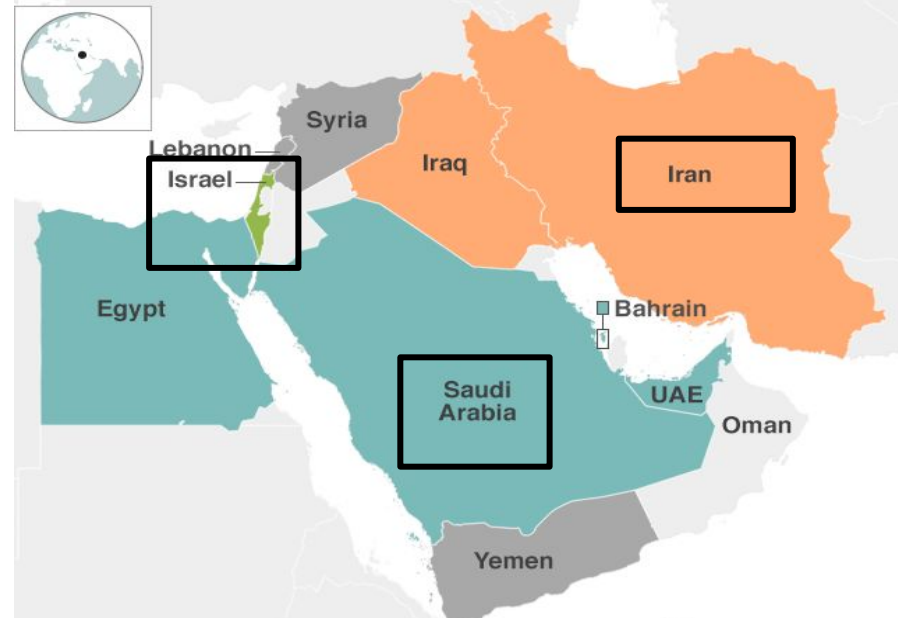
- West Asia has mainly **three regional powers** ie **Israel, Saudi Arabia and Iran.**
- All three of them are **hostile against each other.**

### **Conflictual relations-**

- Saudi Arabia and Iran**
  - Because of Shia Sunni sectarian conflict
- Saudi Arabia and Israel**
  - Because of **Israel Palestine conflict**
- Iran Israel conflict**
  - Because of **the US.**
  - Israel is ally of the US** while **Iran is hostile to US**(Since Iranian Revolution of 1979).

## Who supports whom

■ Saudi side 
 ■ Iran side 
 ■ Split\* 
 ■ Non-aligned



\*Syria: Govt pro-Iran, opposition pro-Saudi. Lebanon: Hezbollah pro-Iran, main Sunni bloc pro-Saudi. Yemen: Govt-in-exile pro-Saudi, Houthi rebels pro-Iran

# 1. Operation Rising Lion

## Iran-Israel conflict

- During 1950's Iran was ruled by a dictator Shah Reza Pahlevi, who maintain good ties with the US and other West countries.
- Pahelvi used to give natural resources of Iran to west countries at concessional rates.
- Revolution in Iran started under Ayatollah Khomeini in 1979 against Pahelvi.
- Iran declared itself republic and replaced Pahelvi.
- After this the Iran- US relations deteriorated.
- Since then the US has been imposing many economic sanctions over Iran.



## Israel angle

- Israel is known as checkpost of the US in West Asia.
- This has led to hostile relation between Israel and Iran.



# 1. Operation Rising Lion

## Current news?

- Israel launched its most **ambitious military operation** over Iran in recent years.
- The attack has been named '**Operation Rising Lion**'.

## **Targets included:**

- Military infrastructure
- Missile facilities
- Nuclear sites mainly at **Natanz Nuclear Facility**.

## **Implications of the attack on politics of West Asia**

- Israel has raised hostility when **US-Iran negotiations** are going on regarding revival of **Iran Nuclear deal/Joint Comprehensive Plan of Action** (covered in newspaper analysis of 23rd April 2025).
- The attack will **scuttle efforts** for **normalization of ties** between **the US and Iran**.



## **Natanz Nuclear Facility**

- Iran's **central uranium enrichment site**.
- Considered the **"beating heart"** of Iran's nuclear program.
- Experts say **no risk of major radiation leak** due to: **Underground design of Natanz**.

# 1. Operation Rising Lion

## Implications on India's interest

### Stability in West Asia is important for India because-

1. Diaspora issue

- Safety of 9 million Indian diaspora working in the region.

2. Remittances

- The region is **one of the largest** source of remittance for India.

3. Energy security

- And about two-thirds of India's crude oil and natural gas imports come from the West Asian region.

4. Impact on Forex Reserves

- Rising oil prices due to instability in west Asia may increase current account deficit.

### Conclusion

- Both Israel and Iran are important allies for India.
- Maintaining a balance between two sides will be easier for India if their hostility is reduced.

### Prelims Practice Question

Q1. Which of the following statements are correct about Natanz nuclear facility in Iran?

1. The Natanz facility is located partly underground and is protected to resist airstrikes.
2. All uranium enrichment at Natanz happens above ground.

### Options

- a. 1 only
- b. 2 only
- c. Both
- d. None



# 2. Forest Rights Act 2006

## In a first, Centre sanctions over 300 FRA cells to 'facilitate' implementation of Forest Rights Act across 18 States, UTs

**Abhinav Lakshman**  
NEW DELHI

In a first since the Forest Rights Act (FRA) came into being in 2006, the Union government has started funding structural mechanisms to "facilitate" the implementation of the law meant to give forest rights to Scheduled Tribes and forest-dwelling communities. Implementation of the FRA, for the last 19 years, has been the domain of State and Union Territory governments.

Under the Dharti Aba Janjatiya Gram Utkarsh Abhiyaan (DAJGUA), the Union Ministry of Tribal Affairs has so far sanctioned the setting up of 324 district-level FRA cells across 18 States and Union Territories implementing the forest rights law. In addition, State-level FRA cells have been sanctioned for 17 of these States and Union Territories.

The rules governing the operation of these cells



The Ministry of Tribal Affairs has sanctioned the setting up of FRA cells under the Dharti Aba Janjatiya Gram Utkarsh Abhiyaan. FILE PHOTO

flow from the DAJGUA programme and not the principal legislation of the FRA – The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006.

This legislation mandates the State government to set up the structure for processing forest rights claims, which includes Gram Sabha Forest Rights Committees (FRCs), Sub-Divisional Level Committees (SDLCs), District Level Committees (DLCs), and

State Monitoring Committees.

### Activists' concern

With the new FRA cells being set up, forest rights activists and experts have raised concerns of this being a "parallel FRA mechanism outside of FRA's purview".

A government official told *The Hindu*, "These FRA cells will have no role in interfering with decisions made by the Gram Sabha, Sub-Divisional Le-

vel Committees, District Level Committees, or State government departments under the FRA. They will merely assist claimants and Gram Sabhas to prepare all paperwork for the FRA claims and assist with data management". The DAJGUA was launched in October 2024 and brings together 25 interventions of 17 line ministries for targeted implementation in over 68,000 tribal-dominated villages. One component of the DAJGUA programme is to speed up FRA implementation.

The operational guidelines for DAJGUA mandate the FRA cells to help with "quick disposal" of pending claims, especially ones that have been held up even after the District Level Committees' approval. According to the last available progress report from March 2025, 14.45% of the 51.11 lakh FRA claims across 21 States/union territories remain pending. Of the around 43 lakh claims

that have been disposed of, over 42% were rejected.

The highest number of district FRA cells sanctioned so far has been in Madhya Pradesh, where 55 have been approved. This is followed by 30 in Chhattisgarh, 29 in Telangana, 26 in Maharashtra, 25 in Assam, and 24 in Jharkhand. Chhattisgarh, Madhya Pradesh, Maharashtra, and Jharkhand are among the States with the least FRA pendency, but in Assam, over 60% of claims are pending and in Telangana, around 50.27% claims are pending.

While the rules framed under the DAJGUA mandate the FRA cells to operate under the State government's machinery, the cells themselves are being funded by the Centre through Grants-in-aid General, as per sanction orders for some of them in States like Assam, Himachal Pradesh, and Odisha, seen by *The Hindu*.

The guidelines provide

a budget of ₹8.67 lakh for each FRA cell at the district level, and ₹25.85 lakh for each State-level FRA cell.

### Significant departure

This marks a significant departure from how Union governments have handled the issue of FRA implementation since it was framed. So far, when confronted with the question of forest rights in Parliament, the Ministry of Tribal Affairs has maintained that the implementation was mandated "primarily" to States and that it keeps "exhorting" all governments to abide by the law.

Besides, the Tribal Affairs Ministry has traditionally restricted itself to funding training and capacity-building programmes for State government officials engaged in FRA implementation, issuing advisories and missives to State governments, and compiling monthly progress reports on FRA data sent by the States.

## Syllabus-

- GS Paper II-Governance
- Prelims

Source -The Hindu (Pg 4)

## 2. Forest Rights Act 2006

### Forest Rights Act, 2006

- Also known as the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act.
- It recognizes the rights of forest-dwelling communities over the land and resources they have traditionally used.

#### Objective of the act

1. To correct the historical injustice meted out to forest-dwelling communities and tribes.
2. To ensure the livelihood and ecological security of these communities while maintaining forest conservation.

### FOREST RIGHTS ACT, 2006



## 2. Forest Rights Act 2006

### Rights recognised under FRA

#### 1. Individual Rights

- Ownership rights over land cultivated for livelihood (up to a maximum of 4 hectares).

#### 2. Community Rights

- Use and access to forest resources like minor forest produce, water bodies, grazing areas, and fish.

### Eligibility Criteria

- Scheduled Tribes (STs) residing in the forests before 13 December 2005.
- Other traditional forest dwellers who have lived in and depended on the forest for at least three generations (75 years).

### Process of Recognition

- Gram Sabha (village assembly) plays a central role in identifying beneficiaries.
- Claims are verified and approved by a committee at the district level.

### Rights for the dwellers

What the Forest Rights Act, 2006, entails

- Tenurial security over the forestland under occupation prior to December 13, 2005
- Recognition of community right over forest and forest products
- Protection and conservation of community forest resources
- Conversion of all forest villages and habitation located inside the forestland into revenue villages
- In situ rehabilitation of displaced persons evicted without compensation prior to December 13, 2005
- Recognition of ancestral domain (habitat) right to



Residents of Gunduribadi village in Odisha's Nayagarh district get ready for mapping their land boundaries for the Forest Rights Act implementation. • SPECIAL ARRANGEMENT

Particularly Vulnerable Tribal Groups

- Seasonal access to nomadic, pastoral and semi-nomadic communities over forestland

- Conversion of all leases granted by erstwhile governments, zamindars and king into permanent land records



Minor Forest Produce (MFP) is a term for non-timber forest products that come from plants.



## 2. Forest Rights Act 2006

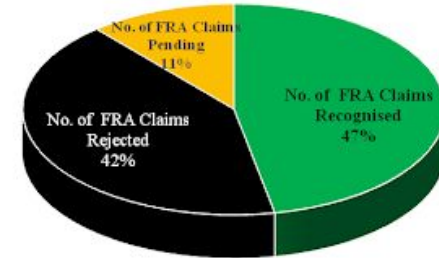
### Implementation of Forest Rights Act 2006

- The responsibility to implement the **Forest Rights Act (FRA), 2006** lies primarily with the **State Governments**.
- State Governments are **required to set up** following **institutional mechanisms for implementation of FRA-**
  1. Gram Sabha Forest Rights Committees (FRCs)
  2. Sub-Divisional Level Committees (SDLCs)
  3. District Level Committees (DLCs)
- These committees are empowered to **process, verify, and approve** claims **under the FRA**.

### Issues

- **42%** of **claims were rejected**, over **60%** of claims **pending** in **Assam**.

Overall Status of FRA implementation in India



## 2. Forest Rights Act 2006

### Current news?

- Under the **Dharti Aba Janjati Gram Utkarsh Abhiyaan** (DAJGUA), the Ministry of Tribal Affairs has sanctioned **324 Forest Right Act(FRA) cells** across 18 States and UTs.
  - 294** at **district level-₹8.67 lakh** budgetary allocation to each
  - 30** at **State/UT level-₹25.85 lakh** budgetary allocation to each

### **FRA cells will:**

- Help with **"quick disposal"** of pending FRA claims.
- Assist in **documentation, claim preparation, and data management**
- Not interfere** with existing legal structures like **DLCs, SDLCs, and FRCs.**

### **Concerns regarding FRA cell**

- Fear of a **"parallel FRA mechanism"** operating outside legal framework.
- Government clarifies:** FRA cells will **only assist**, not replace or interfere with formal approval systems.



### **Birsa Munda**

- The scheme is named in **honor of Birsa Munda**, a **revered tribal leader.**
- He is known as **"Dharti Aaba"** (Father of the Earth),

- Dharti Aba Janjati Gram Utkarsh Abhiyaan** started by the government of India in 2024 in **honour of tribal leader Birsa Munda.**



## 2. Forest Rights Act 2006

### Prelims Practice Question

**Q2. Which of the following statements are true about FRA cells created by the government of India under Forest Right Act 2006?**

- 1. FRA cells have been created under Dharti Aba Janjati Gram Utkarsh Abhiyaan.**
- 2. The FRA Cells have been tasked with carrying out land surveys and mapping forest dwellers' claims, and they also issue final legal titles directly to claimants.**

### Options

- a. 1 only**
- b. 2 only**
- c. Both**
- d. None**

**Q.Discuss the significance of the Forest Rights Act, 2006, in addressing the historical injustices faced by forest-dwelling communities in India. What are the challenges in its implementation? Suggest measures to overcome these challenges. 15 marks/250 words**

### Hints

- Forest Rights Act (FRA), 2006, as a landmark legislation for forest-dwelling communities.
- Mention how Britishers evicted tribals and forest dwellers.
- Highlight its role in addressing historical injustices faced by tribal and other traditional forest dwellers.

### Significance of the FRA, 2006

1. Recognition of Rights(individual and community forest rights)
2. Empowerment of Marginalized Communities
3. Decentralized Governance(Gram Sabha- higher role)
4. Ecological Benefits

### Challenges in Implementation

1. Resistance from forest departments and conservationists(mention current example)
2. High rate of claim rejection due to procedural issues or insufficient documentation(mention data).
3. Complexities in claim verification and lack of adequate resources for authorities.
4. Forest-dwelling communities often remain unaware of their rights under FRA.

### Measures to Overcome Challenges

1. Awareness and Capacity Building
2. Streamlining Procedures- FRA cell created recently by government of India.
3. Balance conservation efforts with the rights of forest-dwelling communities

In conclusion highlight the need of a balanced approach

# 3. “Science behind right AC temperature”

## Science behind right AC temperature

The Union Ministry of Power has indicated that it is considering restricting the temperature range of new air conditioners to between 20 degrees and 28 degrees Celsius; studies indicate that apart from energy saving benefits, there are also public health benefits to support case for a fixed temperature range

Vandana Maheshwari

The Union Ministry of Power has said it is mulling restricting the temperature range of new air conditioners (ACs) in the country to between 20 degrees and 28 degrees Celsius.

In a press conference on Tuesday, Power Minister Mansukh Lal Khattar told reporters the restriction would apply to ACs in households, hotels, and cars.

The idea is not new. In 2018 and then in 2021, K.K. Singh, then the Minister of State (Independent Charge) for Power had said the Ministry was speaking to AC manufacturers about labelling ACs with the optimum temperature setting and fixing the default temperature setting at 24 degrees. At the time the Ministry had also said in a statement that it would consider instituting the default setting following an awareness campaign for four to six months and after public consultations.

“Every 1 degree Celsius increase in the air conditioner temperature setting results in saving of 6% of electricity consumed”, Mr. Singh said. He added that the 24 degrees Celsius recommendation had come from a Bureau of Energy Efficiency study and that should all consumers adopt the setting, the country would save 20 billion units of electricity per year. The BEE had said at the time that the total connected load due to ACs would be 200 gigawatt by 2030.

Aside from calling the 18-21 degrees Celsius range “uncomfortable”, the Minister said it was “unhealthy”. Indeed, many studies have found that the blood pressure load rises (and by how 18 degrees Celsius, with vasoconstriction and sympathetic activation being found to drive the systolic blood pressure up by about 6-8 mm Hg) and long-term exposure translating to higher risk of hypertension. Separate trials involving children in Japan, New Zealand, and the United Kingdom have also found they breathed easier when they slept with ACs set to more than 18 degrees Celsius.

In 2018, the International Energy Agency estimated there were 2 billion ACs in use around the world and that the number of residential units tripled from 2000 to 2022, to 1.5 billion. The agency also said that as of 2022, 43% of people in the Asia Pacific region were still in need of additional cooling.

An AC works by pumping heat from one space to another. Heat naturally flows from warmer to cooler areas, which



**Beating the heat:** People purchasing air conditioners during the summer in Patna. The power cost of ACs is not the only reason to want to steer clear of lower temperatures, say

meats continuously moving it in the other direction – e.g., from a room at 30 degrees Celsius to an environment at 35 degrees Celsius – requires work. This work is represented in the AC’s power consumption.

The typical vapour-compression cycle of an AC uses a liquid called a refrigerant to transport the heat. A device called the evaporator holds the refrigerant at just about its boiling point. When a fan blows the refrigerant into the room, the heat is absorbed by the air. The air also becomes dehumidified as moisture in the air condenses on the evaporator coils and drains away. Next, the high-pressure gas is compressed by a pump, which raises its temperature and pressure (around 70 degrees Celsius) and mean skin temperature can be kept constant without any sweating or shivering and when no more than about

The high-pressure superheated vapour then moves to the condenser, where it naturally loses its heat to the outdoors while turning back into a liquid. Since its pressure is still high, it passes through an expansion device that turns it into a low-pressure liquid-vapour mix close to its boiling point, and sends it back to the evaporator.

The temperature range in which a

can shed that heat by radiation and convection alone without breaking a sweat or restricting skin blood flow. ASHRAE-55 allows the zone to rise roughly 0.3 degrees Celsius for every 1 degree Celsius rise in the mean ambient temperature, up to about 30 degrees to 32 degrees Celsius.

Some sleep studies have converged on 16-19 degrees Celsius for healthy young and middle-aged adults. Cool air reportedly helps the core temperature dip by about 1 degree Celsius, quickening sleep onset and ensuring deep sleep is stable. Infants and older adults may prefer the upper limit of around 19 degrees Celsius because their bodies’ thermoregulation is less robust.

This said, the WHO’s 2018 Housing and Health Guidelines recommend using 18 degrees Celsius as the minimum safe living room temperature in temperate or cooler climates because cardiovascular and respiratory admissions were found to climb steeply below that threshold. One cross-sectional study published in 2014 reported a strong correlation between indoor temperatures under 18 degrees Celsius and 7% of the “population attributable risk” of hypertension.

Similarly, a 2016 study used data from the English Longitudinal Study of Aging 2002-2013 to compare differences in symptoms between people exposed to living space under and over 18 degrees Celsius. It showed that those living in the colder homes had higher cholesterol and weaker grip strength.

Another longitudinal study the same year said 16% of people over the age of 50 and living in spaces cooled to under 18 degrees Celsius had higher blood pressure, higher risk of hypertension, asthma, and respiratory infections when exposed to living spaces under 18 degrees Celsius.

On the respiratory front, a study published in 2013 involving 309 children in the Netherlands found that those who used air conditioning at home had a lower risk of respiratory infections. The study also found that those who used air conditioning at home had a lower risk of respiratory infections.

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### THE GIST

In 2018, the International Energy Agency estimated there were 2 billion ACs in use around the world and that the number of residential units tripled to 1.5 billion from 2000 to 2022.

Numerous studies have ascertained that save for the small fraction of people that need access to cold spaces, the general population can develop higher risks of hypertension, asthma, and respiratory infections when exposed to living spaces under 18 degrees Celsius.

The WHO’s 2018 Housing and Health Guidelines recommend using 18 degrees Celsius as the minimum safe living room temperature in temperate or cooler climates because cardiovascular and respiratory admissions were found to climb steeply below that threshold.

## Syllabus-

- GS Paper III-S&T
- Prelims

## Source -The Hindu(Pg 7)

The Hindu 21st June 2025

### 3. “Science behind right AC temperature”

#### Current context

- The Union Ministry of Power is considering restricting the temperature range of new air conditioners to between 20°C and 28°C.
- Plan to label ACs with a default temperature setting of 24°C.
- Goal: Energy savings and public health benefits.
- The Bureau of Energy Efficiency (BEE) estimated that setting ACs at 24°C could save 20 billion units of electricity per year.

#### Scientific explanation

- For every 1°C increase in AC temperature, there's a 6% saving in electricity consumption.
- Lower temperatures force ACs to work harder (e.g., cooling 30°C air down to 18°C needs more energy).
- The most energy-efficient AC operation is around 24-26°C.



#### As per WHO 2018 guidelines:

- Below 18°C increases risk of cardiovascular and respiratory diseases.
- Increased risk of stroke, heart attacks, hypothermia.

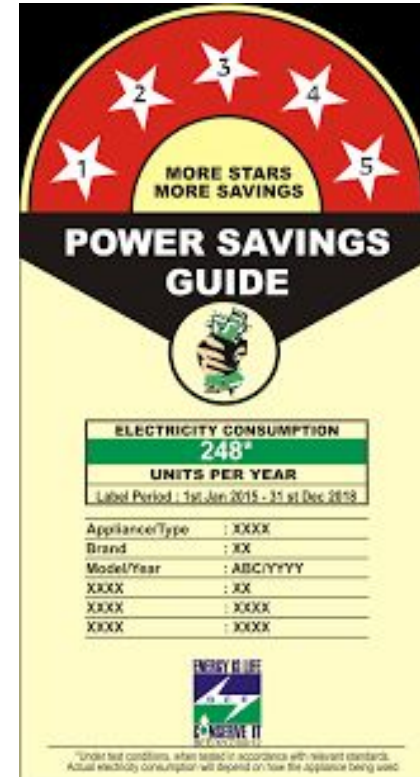
### 3. “Science behind right AC temperature”

#### Bureau of Energy Efficiency

- It was established in **2002** under the provisions of the **Energy Conservation Act, 2001**.
- Primary objective of BEE is to **reduce energy intensity** in the **Indian economy**.

#### Actions

- Developed **Star rating for appliances**
- Releases **State Energy Efficiency Index**
- **Energy Conservation Building Code (ECBC)**





### 3. “Science behind right AC temperature”

#### **Prelims Practice Question**

**Q3. Which of the following statements about the Bureau of Energy Efficiency (BEE) is correct?**

- a. BEE is a private organization that promotes energy trading in India.**
- b. BEE is under the Ministry of Environment, Forest and Climate Change.**
- c. BEE is a statutory body under the Ministry of Power responsible for promoting energy efficiency and conservation.**
- d. BEE issues licenses for coal mining operations in India.**

# 4. Srimanta Sankaradeva Award-2023

## Srimanta Sankaradeva Award-2023 presented to Sonal Mansingh



**STAFF REPORTER**

GUWAHATI, June 12: In a grand celebration of art, culture, and spiritual heritage, Assam Governor Lakshman Prasad Acharya presented the Srimanta Sankaradeva Award-2023 on Padma Vibhushan Dr Sonal Mansingh, one of India's most distinguished classical dancers, at a ceremonial event held at Srimanta Sankaradeva Kalakshetra here today.

Among those present on the occasion were Chief Minister Himanta Biswa Sarma, Union Minister Sarbananda Sonowal and other eminent dignitaries.

Dr Mansingh, a doyen of Bharatanatyam and Odissi, has spent decades championing Indian traditions through performance, education, and policymaking.

Conferring the award on Dr Sonal Mansingh, the Governor recognized her lifelong dedication to Indian classical dance, her innovative social reform.

"This award is not just a tribute to her person, but a recognition of her endless service to the nation, emphasizing the spirit of Indian heritage," he said.

In his address, Acharya paid rich tributes to Srimanta Sankaradeva, describing him a spiritual luminary and cultural reformer who transcended regional boundaries to become a national symbol of unity, harmony, and inclusiveness.

"Srimanta Sankaradeva was not just a saint of Assam or the North-east, he was a symbol of India's collective cultural consciousness," he said.

Highlighting the saint's legacy, the Governor spoke of Sankaradeva's role in advancing neo-Vaishnavism or Ek Sankar Ekam Phantam, which promoted social equality and broke down caste hierarchies through devotion, art, music, drama, and philosophical thought. He further said that Mahapurush Srimanta Sankaradeva's contributions such as Borgheet, Ankiya Naat, and his translations of the *Blagovesta Parana* – continue to shape Assam's cultural identity.

The Governor also lauded the efforts of the Assam Government in preserving and promoting the legacy of Srimanta Sankaradeva through initiatives like the development of Batadrava Thap, Parbati, Sankaradeva Kalakshetra and the institution of the Srimanta Sankaradeva Unity in various educational institutions across the State and the country.

Dr Sonal Mansingh, in her acceptance speech, expressed her gratitude for choosing her for the coveted award. Reminiscing on her long association with Assam and the Vaishnava philosophy, she said that she had always been moved by the enriching teachings of Srimanta Sankaradeva.

Speaking about Borgheet, she said that she would explore how the elements of Borgheet were energized and armed in her classical dance.

The programme was attended by Minister of Culture Bimal Bora, Chief Secretary Dr Ravi Kola, and eminent dance artist Gopin along with a host of other dignitaries.

Date-13th June 2023

**Syllabus-**

- GS Paper V-Assam Issues
- Prelims

**Source -The Assam Tribune(Pg 3)**

## 4. Srimanta Sankaradeva Award-2023

### What is the news?

- Srimanta Sankaradeva Award-2023 presented to classical dancer Sonal Mansingh.

### Dr. Sonal Mansingh

- Renowned for Bharatanatyam and Odissi.
- Has promoted Indian culture through her performance.
- Known for blending classical dance with social and contemporary themes.
- Founded Centre for Indian Classical Dances (CICD) in 1977 in New Delhi.

### Awards

- She was the youngest recipient of Padma Bhushan in 1992.
- In 2003, Sonal became the first Indian woman dancer to be awarded Padma Vibhushan.



## 4. **Srimanta Sankaradeva Award-2023**

### **Prelims Practice Question**

**Q4. Sonal Mansingh, Padma Bhushan and Padma Vibhushan awardee, is an accomplished dancer of which of the following dances in addition to the Bharatanatyam?**

- a. Kathakali**
- b. Kathak**
- c. Sattriya**
- d. Odissi**

# Answers of previous day questions

## Prelims Practice Question

**Q1. Which of the following statements about the Sufi saint Rumi is correct?**

1. Rumi's poetry primarily focuses on divine love and the union of the soul with God.
2. Rumi founded the Sufi order known as the Qadiriyya.

**Options:**

- ☒ a. 1 only
- b. 2 only
- c. Both
- d. None

## Prelims Practice Question

**Q2. Consider the following statements about the Global Gender Gap Report 2025 (released June 2025):**

1. The global gender gap is now 68.8% closed, and projections indicate it will take 123 years to reach full parity.
2. Iceland remains the only country to have closed more than 90% of its gender gap, maintaining the top position in the rankings.

**Options**

- a. 1 only
- b. 2 only
- ☒ c. Both
- d. None



# Answers of previous day questions

## Prelims Practice Question

Q3. Consider the following question regarding 'Crowd Out Effect-

1. It may happen when government increases its spending.
2. It may happen in case of rising Fiscal deficit.

Option

- a. 1 only
- b. 2 only
- ☒ c. Both
- d. None

## Prelims Practice Question

Q4. Consider the following statements regarding the effect of higher temperatures on aircraft performance:

1. Higher temperatures expand the air, making it less dense and reducing engine performance.
2. Thin air provides less lift because fewer air molecules are available beneath the wings.

Options

- a. 1 only
- b. 2 only
- ☒ c. Both
- d. None

# Answers of previous day questions

## Prelims Practice Question

**Q5. The term black box recently seen in news is related to-**

- a. A new kind of semiconductor material
- b. A highly equipped artificial intelligence device
- ☒ c. Flight data recorder system
- d. An equipment to remove black carbon from atmosphere



**SPM IAS ACADEMY**  
SHAPING BRILLIANCE

**PRESENTED BY**



**SATYAJIT KUMAR (IIT ROORKEE)**

