

DAILY CURRENT AFFAIRS 22-03-2025

<u>GS-2</u>

1. The Customs Act of 1962

GS-3

- 2. India To Face Imminent Power Shortages
- 3. Audible Enclaves
- 4. ICAR Report on Climate Change Impact
- 5. Armed Forces (Special Powers) Act (AFSPA)

The Customs Act of 1962

Syllabus: GS-2: Indian Polity – Laws and Policies. & SC judgements.

Context:

- The Supreme Court, in Radhika Agarwal v. Union of India, curtailed the powers of officers to make arrests under:
 - Customs Act, 1962
 - Central Goods and Services Tax (CGST) Act, 2017
- > The ruling establishes that customs officers' powers of arrest, search, and seizure are **analogous to those of police officers**, making them subject to procedural safeguards under the **Code of Criminal Procedure (CrPC)**, **1973**.

Key Procedural Safeguards

- > Arrestee must be **presented before a magistrate within 24 hours**.
- > Authorities must inform a **friend or family member** of the arrestee.
- > The **right to legal representation** during interrogation.

SC's Efforts to Limit Prosecuting Agencies' Powers

- Part of the Supreme Court's broader initiative to restrict the broad arrest powers granted under stringent laws.
- Similar precedent in Arvind Kejriwal v. Directorate of Enforcement concerning the Prevention of Money Laundering Act (PMLA), 2002.
- In *Radhika Agarwal*, the SC extended **PMLA arrest safeguards** to the Customs and CGST Acts.

Power of Arrest under Customs and CGST Acts

- Certain offences under these acts are classified as cognisable, meaning arrests can be made without a magistrate's warrant.
- Example: Section 104(4) of the Customs Act classifies evasion of customs duty over ₹50 lakh as a cognisable offence.
- However, the SC held that agencies do not have unlimited power to arrest in such cases.

Link to Kejriwal Case

- In Arvind Kejriwal v. ED, the SC restricted arbitrary arrests under Section 19 of PMLA.
- > The SC in *Radhika Agarwal*extended these safeguards to Customs and CGST officials.

> Court warned against **"unbridled exercise" of power leading to arbitrariness**.

Three Key Safeguards Established by SC

Material in Possession

- > Arrest can only happen if:
 - The officer has **sufficient material evidence**.
 - The officer **records reasons in writing** to justify arrest.
- > Officers cannot arrest based on mere suspicion.

Reasons to Believe

- > The officer must record **"reasons to believe"** that the person is guilty based on evidence.
- While the Customs and CGST Acts do not explicitly require this, the SC ruled that such a requirement is implicit.

Providing Grounds of Arrest

- > The grounds for arrest **must be communicated** to the accused.
- > Enables the accused to **challenge the arrest** or **apply for bail**.
- > Without this, the accused would be at a disadvantage in legal proceedings.

Misuse of Power and SC's Response

- > The SC **did not strike down** the arrest powers under the CGST and Customs Acts.
- However, it examined data on GST-related arrests and recoveries and noted concerns about misuse.
- The court found that tax officials were coercing individuals into paying tax under the threat of arrest.

SC's Directives to Curb Misuse

- > Illegal for officials to use arrests as a tool for tax recovery.
- Victims of coercion can:
 - **Seek a refund** of wrongfully paid tax.
 - Move courts for relief.
- > Departments must **take action against officers** found guilty of coercion.

Significance of the Judgment

Reinforces constitutional and statutory rights of individuals against arbitrary arrest.

- Brings customs and tax officers under the same procedural safeguards as police officers.
- > Limits **unregulated prosecutorial power** and provides **judicial oversight**.
- > Strengthens safeguards against **coercion and misuse of power** in tax-related investigations.

India To Face Imminent Power Shortages

Syllabus: GS-3: Infrastructure – Power Sector.

Context:

The **National Load Despatch Centre** (NLDC) has warned that India is set to face imminent power shortages in the high-demand months of May and June 2025, with projected unmet electricity demand ranging between 15–20 GW, particularly during non-solar hours.

Forecast by National Load Despatch Centre (NLDC)

- > High-Risk Months:
 - May 2025 flagged as the most critical, followed by June.
 - Projected shortages during **non-solar hours**.
- > Unserved Demand Projection:
 - Power shortfalls exceeding **15–20 GW**, particularly in May and July 2025.
- > Loss of Load Probability (LOLP):
 - May 2025: Ranges from **19% (best-case) to 31% (median scenario)**, indicating severe reliability issues.

> Peak Demand Projection:

• Estimated at **270 GW in summer 2025**, up from **250 GW in 2024**.

Existing Status of the Power Sector

Stagnant Baseload Capacity

- No significant growth in coal-based baseload capacity, causing supply constraints during non-solar hours.
- > Delays in under-construction thermal power plants due to **theft**, **fire**, **and raw material shortages**.

Dependence on Renewable Energy

- Installed renewable capacity:200 GW, but with limited storage capacity (4.86 GW).
- > Intermittency Issues:
 - Solar power meets **daytime demand** but leaves a gap in the evening.
 - Lack of adequate energy storage solutions.

Policy Lapses

- 2017–22 National Electricity Plan deprioritized fresh thermal additions, leading to a structural deficit.
- > Lack of a balanced approach between renewable growth and baseload stability.

Need for Demand-Side Reforms in Power Sector

Load Management Strategies

- > Load Shifting:
 - Encourage industries and large consumers to shift power consumption to **off-peak hours**.
- > Demand Response Mechanisms:
 - Incentive-based programs to reduce demand during peak periods.
 - Example: **Singapore's Demand Response Program**.

Smart Consumption Measures

- > Smart Metering Rollout:
 - Nationwide implementation for real-time monitoring and consumption optimization.
- > Public Awareness Campaigns:
 - Educate consumers on peak-hour energy conservation.
 - Example: **Delhi's "Save Power" initiative**.

> Dynamic Pricing:

• Introduction of **time-of-day tariffs** to discourage power use during peak hours.

Way Ahead: Strategies for Grid Stability

Accelerating Storage Capacity

Expedited commissioning of Battery Energy Storage Systems (BESS) and Pumped Storage Projects (PSPs).

Revival of Thermal Power

- > Encourage private sector participation to **revive investments in thermal generation**.
- Planned thermal maintenance during low-demand months (Nov-Jan) to ensure availability in peak summer.

Strengthening Grid Infrastructure

- > Investment in **transmission upgrades** for reliable inter-state power distribution.
- > Modernization of **grid management systems** with AI-based forecasting.

Integrated Energy Planning

- Balance renewable energy scaling with adequate baseload capacity and storage solutions.
- > Align the **National Electricity Plan** with evolving demand projections.

Conclusion

- The NLDC report highlights an urgent need to balance renewable expansion with reliable baseload power.
- > **Demand-side reforms and grid modernization** are critical to avoid power shortages in peak months.
- > A strategic mix of policy interventions, infrastructure investment, and public participation is necessary for sustained grid stability.

Audible Enclaves

Syllabus: GS-3: Science and Technology –Recent Inventions in Physics.

Context:

Researchers at Penn State have developed audible enclaves for personal sound delivery without headphones.

Audible Enclaves

Definition

- Audible enclaves are small pockets of sound that remain undisturbed by surrounding noise.
- > They utilize advanced technology to deliver sound to a specific person, even in a crowded environment.

Principles of Sound Waves

- > Sound consists of waves moving through a medium, causing particles to oscillate.
- > Frequency of Sound:
 - Determined by how fast the medium's particles move back and forth.
 - Higher frequency = faster particle movement = higher-pitched sound.

Diffraction and Sound Divergence

- > **Diffraction:** When sound waves spread as they pass through the air.
- > Impact of Frequency:
 - Higher frequency sounds diverge more than lower frequency sounds.
- Traditional speakers emit sound in all directions, making targeted audio delivery difficult.

Parametric Array Loudspeakers

- > These devices create focused 'beams' of sound.
- > They emit high-frequency waves modulated with an audio signal.
- As the waves travel, they **self-demodulate**, confining the sound within a narrow beam.
- > The sound is only audible to individuals in the beam's direct path.

Advancement: Audible Enclaves

- Researchers have developed a more precise method using two high-frequency waves of different frequencies.
- > These waves are **inaudible** individually but produce sound when they intersect due to **non-linear interactions**.
- > The sound is generated only at the point of intersection, making it audible only to people nearby.

Significance

- > Enhances **privacy in communication** by delivering sound to targeted individuals.
- > Useful in **crowded environments** like public spaces, museums, and military applications.
- > Reduces **noise pollution** by eliminating unnecessary sound dispersion.

ICAR Report on Climate Change Impact

Syllabus: GS-3: Environment- Climate Change & Its Impact

Context:

The Union Minister for Rural Development informed the Lok Sabha that climate change will lead to increased rainfall, resulting in higher soil erosion and rising salinity, based on the ICAR report on the impact of climate change.

Impact of Climate Change on Agriculture – ICAR Report Findings

Projected Changes in Rainfall Patterns

- > Increase in Kharif Rainfall
 - Expected rise of **9–10.1% by 2050** and **5.5–18.9% by 2080**.
 - Leads to excess surface runoff and increased soil displacement.

> Increase in Rabi Rainfall

- Estimated increase of **12–17% by 2050** and **13–26% by 2080**.
- Affects **moisture balance**, altering **crop patterns** and productivity.

Soil Degradation and Land Productivity

- > Soil Erosion
 - Projected **10 tonnes per hectare per year** soil loss from croplands by 2050.
 - Reduces **soil fertility** and impacts **agricultural output**.
- > Rising Soil Salinity
 - Salinity-affected land expected to expand from **7 million hectares to 11** million hectares by 2030.
 - Reduces **availability of arable land**, threatening food security.

Key Concerns Identified in the ICAR Report

- > Accelerated Soil Erosion Loss of topsoil impacts fertility and productivity.
- Increased Crop Vulnerability Erratic rainfall and soil degradation disrupt crop cycles.
- Threat to Farmers' Livelihoods Declining farm output and degraded soil lead to reduced income and rural employment.

Recommendations for Climate-Resilient Agriculture

> Soil Conservation Measures

- Adoption of **contour farming, cover cropping, and agroforestry** to prevent erosion.
- > Salt-Tolerant Crop Varieties
 - Development and promotion of **salinity-resistant crop strains**.
- > Efficient Water Management
 - Implementation of **rainwater harvesting** and **micro-irrigation systems**.
- > Climate-Resilient Agriculture
 - Integration of **climate modelling** and **advisory services** for adaptive farming practices.

Armed Forces (Special Powers) Act (AFSPA)

Syllabus: GS-3: Internal Security - Acts and Laws.

Context:

MHA reviews AFSPA in the Northeast, Army wants more areas in Manipur under Act.

Armed Forces (Special) Powers Act (AFSPA) in Manipur: Recent Developments

Recent Review Meeting on AFSPA

- The Union Ministry of Home Affairs (MHA) chaired a review meeting on March 20, 2025.
- > The Army requested the inclusion of additional police station limits in Manipur Valley under AFSPA.
- > The proposal was to bring 12 police station limits in valley districts under AFSPA for operational efficiency.
- > The final decision rests with the Ministry.

Background on AFSPA in Manipur

- November 14, 2024: AFSPA was reimposed in six police stations across five districts in Manipur.
- **Reason for Reimposition:** Ethnic violence that erupted on May 3, 2023.
- > Past Revocation:

- AFSPA was withdrawn from all valley police stations between April 1, 2022, and April 1, 2023, due to improved security.
- It was removed from Imphal Municipality in 2004.
- Hill districts remain under "disturbed area" status, with the last notification issued on September 26, 2024.

Imposition of President's Rule

- > President's Rule was imposed in Manipur on February 13, 2025.
- > March 1, 2025: Union Home Minister Amit Shah chaired a meeting in New Delhi to discuss the possibility of extending AFSPA to more areas.

Review of AFSPA in Other States

- > A multi-agency meeting on March 19, 2025, reviewed AFSPA in:
 - **Assam** (one district may be de-notified).
 - Nagaland
 - Arunachal Pradesh
 - Manipur
- The periodic six-month "disturbed area" notification for these states ends on March 31.

Authority for AFSPA Notifications

- > Ministry of Home Affairs (MHA) issues disturbed area notifications for:
 - Nagaland
 - Arunachal Pradesh
- > **State Governments** issue notifications for:
 - Manipur
 - o Assam

Armed Forces (Special Powers) Act (AFSPA) - Overview

Enactment

Passed by the **Parliament in 1958** to empower the armed forces to maintain public order in disturbed areas.

Application

> **Invoked after an area is declared "disturbed"** under **Section 2** of the Act.

Declared due to ethnic, religious, or communal tensions, insurgency, or security threats.

Declaration of Disturbed Areas

- > Can be declared by:
 - Central Government
 - State Governor
 - Union Territory (UT) Administrator

Special Powers Under AFSPA

- > **Control over public gatherings**: Prohibit gatherings of **five or more people**.
- > **Use of force**: Use force or open fire after due warning if laws are contravened.
- > Arrest and search without warrants:
 - Arrest individuals based on **reasonable suspicion**.
 - Search premises without a warrant.
- > **Seizure of weapons**: Seize firearms and prohibit their possession.
- Handling of detainees: Hand over arrested individuals to local police along with a detailed report.

Immunity Clause

Legal protection for armed forces personnel: No prosecution, legal suit, or judicial proceeding without prior sanction from the Union Government.

Current Enforcement

- > AFSPA is in force in:
 - o Jammu & Kashmir
 - \circ Assam
 - Nagaland
 - Parts of Manipur (*excluding Imphal*)
 - Parts of Arunachal Pradesh